

GenCore version 5.1.9  
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OM nucleic - nucleic search, using sw model

Run on: January 25, 2007, 12:21:53 ; Search time 320 Seconds  
(without alignments)

3.761 Million cell updates/sec

Title: SSE242651

Perfect score: 8637

Sequence: 1 GCCAGCCCCCGATTGGGGGC.....GGCCTCTCTGCAGATCAAGT 8637

Scoring table: IDENTITY\_NUC

Gapop 10.0 , Gapext 0.5

Searched: 24 seqs, 69674 residues

Total number of hits satisfying chosen parameters: 48

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Database : US10789355.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	8591.3	99.5	8639	1	US-10-789-355-1
2	8590.3	99.5	8638	1	US-10-789-355-24
3	8567.3	99.2	8638	1	US-10-789-355-7
4	8566.3	99.2	8638	1	US-10-789-355-25
5	8566.3	99.2	8642	1	US-10-789-355-2
6	8563.1	99.1	8638	1	US-10-789-355-6
7	8552.3	99.0	8648	1	US-10-789-355-5
8	8542.6	98.9	8643	1	US-10-789-355-4
9	8542.6	98.9	8643	1	US-10-789-355-4
10	8542.6	98.9	8643	1	US-10-789-355-4
11	8542.6	98.9	8643	1	US-10-789-355-4
12	8542.6	98.9	8643	1	US-10-789-355-4
13	8542.6	98.9	8643	1	US-10-789-355-4
14	8542.6	98.9	8643	1	US-10-789-355-4
15	8542.6	98.9	8643	1	US-10-789-355-4
16	8542.6	98.9	8643	1	US-10-789-355-4
17	8542.6	98.9	8643	1	US-10-789-355-4
18	8542.6	98.9	8643	1	US-10-789-355-4
19	8542.6	98.9	8643	1	US-10-789-355-4
20	8542.6	98.9	8643	1	US-10-789-355-4
21	8542.6	98.9	8643	1	US-10-789-355-4
22	8542.6	98.9	8643	1	US-10-789-355-4
23	8542.6	98.9	8643	1	US-10-789-355-4
24	8542.6	98.9	8643	1	US-10-789-355-4
25	8542.6	98.9	8643	1	US-10-789-355-4
26	8542.6	98.9	8643	1	US-10-789-355-4
27	8542.6	98.9	8643	1	US-10-789-355-4
28	8542.6	98.9	8643	1	US-10-789-355-4
29	8542.6	98.9	8643	1	US-10-789-355-4
30	8542.6	98.9	8643	1	US-10-789-355-4
31	8542.6	98.9	8643	1	US-10-789-355-4
32	8542.6	98.9	8643	1	US-10-789-355-4
33	8542.6	98.9	8643	1	US-10-789-355-4

34	12.8	0.1	45	1	US-10-789-355-13	Sequence 13, Appl
35	12.6	0.1	39	1	US-10-789-355-15	Sequence 15, Appl
36	12.2	0.1	30	1	US-10-789-355-11	Sequence 11, Appl
37	12.2	0.1	36	1	US-10-789-355-14	Sequence 14, Appl
38	12	0.1	45	1	US-10-789-355-20	Sequence 20, Appl
39	11.6	0.1	27	1	US-10-789-355-23	Sequence 23, Appl
40	11.4	0.1	26	1	US-10-789-355-19	Sequence 19, Appl
41	11.2	0.1	30	1	US-10-789-355-17	Sequence 17, Appl
42	11.2	0.1	33	1	US-10-789-355-10	Sequence 10, Appl
43	10.8	0.1	30	1	US-10-789-355-18	Sequence 18, Appl
44	10.6	0.1	45	1	US-10-789-355-12	Sequence 12, Appl
45	10.6	0.1	45	1	US-10-789-355-16	Sequence 16, Appl
46	10.2	0.1	23	1	US-10-789-355-22	Sequence 22, Appl
47	6	0.1	6	1	US-10-789-355-8	Sequence 8, Appl
48	6	0.1	6	1	US-10-789-355-8	Sequence 8, Appl

ALIGNMENTS

RESULT 1  
US-10-789-355-1  
; Sequence 1, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; TITLE OF INVENTION: HEPATITIS C VIRUS  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10/789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10/029,907  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 1  
; LENGTH: 8639  
; TYPE: DNA  
; ORGANISM: HCV  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1803)....(8408)  
US-10-789-355-1

Query Match 99.5%; Score 8591.3; DB 1; Length 8639;  
Best Local Similarity 99.7%; Pred. No. 0;  
Matches 8624; Conservative 0; Mismatches 2; Indels 23; Gaps 2;

Qy	1	GCCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTG	60
Db	2	GCCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTG	61
Qy	61	TCCTTCAGCAGAAACGCTCTAGCCATGCGTTAGTATGATGTCGTGACAGCTCCAGGAC	120
Db	62	TCCTTCAGCAGAAACGCTCTAGCCATGCGTTAGTATGATGTCGTGACAGCTCCAGGAC	121
Qy	121	CCCCCTCTCCGGGAGAGCCATAGTGTGTGCGGAAACCGGTGAGTACACCGGAATTGCCAG	180
Db	122	CCCCCTCTCCGGGAGAGCCATAGTGTGTGCGGAAACCGGTGAGTACACCGGAATTGCCAG	181
Qy	181	GACGACGGGTCTCTTTCTTGTGATCAACCCGCTCAATGCTGGAGATTTGGGGGTGCCCCC	240
Db	182	GACGACGGGTCTCTTTCTTGTGATCAACCCGCTCAATGCTGGAGATTTGGGGGTGCCCCC	241
Qy	241	GCGAGACTGTAGCGAGTGTGTTGGTCCGGAAGCCTTGTGCTACTGCTCTATAG	300
Db	242	GCGAGACTGTAGCGAGTGTGTTGGTCCGGAAGCCTTGTGCTACTGCTCTATAG	301
Qy	301	GTGCTTGCAGTGTCCCGGGAGGTCTCTGTAGACCCGTGACCATGAGCAGAAATCTTAAC	360
Db	302	GTGCTTGCAGTGTCCCGGGAGGTCTCTGTAGACCCGTGACCATGAGCAGAAATCTTAAC	361



Db 2511 AGCTTCAAGCGCGGACAGGAACCAAGTCCAGGGGAGGTCCAAAGTGGTCTCCACCGCA 2570  
Qy 2569 ACACAAATCTTCTCGGGGACCTCGGTCAAATGGCGTGTGTGGACTGTCTATCATGTGGCC 2628  
Db 2571 ACACAAATCTTCTCGGGGACCTCGGTCAAATGGCGTGTGTGGACTGTCTATCATGTGGCC 2630  
Qy 2629 GGCTCAAAGAACCTTTGCGGCGCCAAAGGGCCCAATCAACCCAAATGTATACCAATGTGGAC 2688  
Db 2631 GGCTCAAAGAACCTTTGCGGCGCCAAAGGGCCCAATCAACCCAAATGTATACCAATGTGGAC 2690  
Qy 2689 CAGGACCTCGTCCGCTGGCAGCGCCCGCCCGGGGCGGTTCCTTTGACACCAATGACCTGC 2748  
Db 2691 CAGGACCTCGTCCGCTGGCAGCGCCCGCCCGGGGCGGTTCCTTTGACACCAATGACCTGC 2750  
Qy 2749 GGACGCTCGACCTTTTACTTGGTCACGAGGATCCCGATGTCATTCGCGTGGCGCGCGG 2808  
Db 2751 GGACGCTCGGACCTTTTACTTGGTCACGAGGATCCCGATGTCATTCGCGTGGCGCGCGG 2810  
Qy 2809 GGCGACAGCAGGGGAGCCTACTCTCCCGCAGGCGCGTCTCTACTTTGAAGGGCTCTTCG 2868  
Db 2811 GGCGACAGCAGGGGAGCCTACTCTCCCGCAGGCGCGTCTCTACTTTGAAGGGCTCTTCG 2870  
Qy 2869 GGCGCTCCAATGCTCTCGCTCGGGGACCGTGTGGGCACTTTTGGGCTGCGGTGTC 2928  
Db 2871 GGCGCTCCAATGCTCTCGCTCGGGGACCGTGTGGGCACTTTTGGGCTGCGGTGTC 2930  
Qy 2929 ACCCGGGGTTCGGAAGCGGTGGACTTTGTATACCGCTCGAGTCTATGGAACCACTATG 2988  
Db 2931 ACCCGAGGGGTTCGGAAGCGGTGGACTTTGTATACCGCTCGAGTCTATGGAACCACTATG 2990  
Qy 2989 CGGTCCCGGTCTTACGGAACAATCGTCCCGCTCGGCGGTACCGCAGACAATTCAGGTG 3048  
Db 2991 CGGTCCCGGTCTTACGGAACAATCGTCCCGCTCGGCGGTACCGCAGACAATTCAGGTG 3050  
Qy 3049 GCCCATCTACACGCGCTTACTGTAGCGCAAGACACTAAGGTGCGCGTTCGATATGCA 3108  
Db 3051 GCCCATCTACACGCGCTTACTGTAGCGCAAGACACTAAGGTGCGCGTTCGATATGCA 3110  
Qy 3109 GCCCAAGGTATAGGTGCTTGTCTGAACCGCTCGTCCGCGGCAACCTTAGGTTTCGGG 3168  
Db 3111 GCCCAAGGTATAGGTGCTTGTCTGAACCGCTCGTCCGCGGCAACCTTAGGTTTCGGG 3170  
Qy 3169 GCGTATATGCTAAGGCACATGTATCGACCTTAACATCAGAACCGGGGTAAAGCAATC 3228  
Db 3171 GCGTATATGCTAAGGCACATGTATCGACCTTAACATCAGAACCGGGGTAAAGCAATC 3230  
Qy 3229 ACCACGGGTGCCCGCATACGTACTCCACCTATGGCAAGTTTCTTCCGACGGTGGTTGC 3288  
Db 3231 ACCACGGGTGCCCGCATACGTACTCCACCTATGGCAAGTTTCTTCCGACGGTGGTTGC 3290  
Qy 3289 TCTGGGGGCGCCTATGACATCAATAATATGATGAGTGCCACTCAACTGACTCGACCACT 3348  
Db 3291 TCTGGGGGCGCCTATGACATCAATAATATGATGAGTGCCACTCAACTGACTCGACCACT 3350  
Qy 3349 ATCTGGGCATCGGCACAGTCTTGACCAAGCGGACCGCTGGAGCGGCACTCTCGTG 3408  
Db 3351 ATCTGGGCATCGGCACAGTCTTGACCAAGCGGACCGCTGGAGCGGCACTCTCGTG 3410  
Qy 3409 CTGCGCACCGCTACGCTCGCGGATCGGTCAACCGTGCACATCAACACATCGAGGAGGTG 3468  
Db 3411 CTGCGCACCGCTACGCTCGCGGATCGGTCAACCGTGCACATCAACACATCGAGGAGGTG 3470  
Qy 3469 GCTCTGTCCAGCACTGAGAAATCCCTTTATTTGGCAAGCCATCCCATCGAGACCATC 3528  
Db 3471 GCTCTGTCCAGCACTGAGAAATCCCTTTATTTGGCAAGCCATCCCATCGAGACCATC 3530  
Qy 3529 AAGGGGGGAGGACCTCATTTCTGCAATTCAGAGAAATGTGATGAGCTCGCGCG 3588  
Db 3531 AAGGGGGGAGGACCTCATTTCTGCAATTCAGAGAAATGTGATGAGCTCGCGCG 3590  
Qy 3589 AAGCTGTCCGGCTCGGACTCAATGCTGTAGCAATTTACCGGGGCTTGTATGATCCGTC 3648  
Db 3591 AAGCTGTCCGGCTCGGACTCAATGCTGTAGCAATTTACCGGGGCTTGTATGATCCGTC 3650

Qy 3649 ATACCAACTACGGAGACGTCAATTGTCTGTAGCAACGAGCGCTCTAATGACGGCTTTTACC 3708  
Db 3651 ATACCAACTACGGAGACGTCAATTGTCTGTAGCAACGAGCGCTCTAATGACGGCTTTTACC 3710  
Qy 3709 GGCATTTTCGACTCAGTGTATGCACTGCAATACATGTGTATGCCAGACAGTCACTTCAGC 3768  
Db 3711 GGCATTTTCGACTCAGTGTATGCACTGCAATACATGTGTATGCCAGACAGTCACTTCAGC 3770  
Qy 3769 CTGAGCCCGACCTTACCATTTGAGACGACGACCGTGCACAAAGACGCGTGTCAAGCTCG 3828  
Db 3771 CTGAGCCCGACCTTACCATTTGAGACGACGACCGTGCACAAAGACGCGTGTCAAGCTCG 3830  
Qy 3829 CAGCGGCGAGCAGGACTGTGTAGGGGCAAGTGGGCAATTTACAGGTTTGTGACTCCAGGA 3888  
Db 3831 CAGCGGCGAGCAGGACTGTGTAGGGGCAAGTGGGCAATTTACAGGTTTGTGACTCCAGGA 3890  
Qy 3889 GAAACGGGCTCGGCAATGTTTCGATTTCTCGTTCGTGTGAGTGTATGACCGGGCTGT 3948  
Db 3891 GAAACGGGCTCGGCAATGTTTCGATTTCTCGTTCGTGTGAGTGTATGACCGGGCTGT 3950  
Qy 3949 GCTTGTGTACGAGCTCAACCGCGCGGAGACCTCAGTTAGTTTGGGGCTTACCTTAACACA 4008  
Db 3951 GCTTGTGTACGAGCTCAACCGCGCGGAGACCTCAGTTAGTTTGGGGCTTACCTTAACACA 4010  
Qy 4009 CCAGGTTTGGCGCTCTGCCAGGACCATCTGAGTTCTTGGAGAGGTCTTTTACAGGCTTC 4068  
Db 4011 CCAGGTTTGGCGCTCTGCCAGGACCATCTGAGTTCTTGGAGAGGTCTTTTACAGGCTTC 4070  
Qy 4069 ACCACATAGACGCGCAATTTCTTGTCCAGACTAAGCAGGCAAGGAGACAATTCCTTAC 4128  
Db 4071 ACCACATAGACGCGCAATTTCTTGTCCAGACTAAGCAGGCAAGGAGACAATTCCTTAC 4130  
Qy 4129 CTGTGTAGCATACAGGCTACCGGTGTGCGCCAGGGCTCAGGGCTCAGCTTCATCTGTTGGAC 4188  
Db 4131 CTGTGTAGCATACAGGCTACCGGTGTGCGCCAGGGCTCAGGGCTCAGCTTCATCTGTTGGAC 4190  
Qy 4189 CAATGTGGAGTGTCTCATACGGCTAAAGCTCAGCTGCAAGGGCCCAAGCCCTGCTG 4248  
Db 4191 CAATGTGGAGTGTCTCATACGGCTAAAGCTCAGCTGCAAGGGCCCAAGCCCTGCTG 4250  
Qy 4249 TATAGGCTGGAGCGCTTTCAAAACGAGTTTACTACCAACACCCCATTAACAAATACATC 4308  
Db 4251 TATAGGCTGGAGCGCTTTCAAAACGAGTTTACTACCAACACCCCATTAACAAATACATC 4310  
Qy 4309 ATGCGATGTCATGTGCGTGTACCTCGAGGTCTGACAGACCTGCGGTCTGTTAGGCGGA 4368  
Db 4311 ATGCGATGTCATGTGCGTGTACCTCGAGGTCTGACAGACCTGCGGTCTGTTAGGCGGA 4370  
Qy 4369 GTCTAGCAGTCTGGCGCGGTATGCTGTGACCAACAGGCGGTGTTTATGTTGGGCGG 4428  
Db 4371 GTCTAGCAGTCTGGCGCGGTATGCTGTGACCAACAGGCGGTGTTTATGTTGGGCGG 4430  
Qy 4429 ATCATCTTGTTCGGAAGCGCGCATCATTCGACAGGAGTCTTTTACCGGAGTTC 4488  
Db 4431 ATCATCTTGTTCGGAAGCGCGCATCATTCGACAGGAGTCTTTTACCGGAGTTC 4490  
Qy 4489 GATGAGATGGAAGAGTGGCGCTCACCTCTTACATCGAACAGGGAATCAGCTCGCC 4548  
Db 4491 GATGAGATGGAAGAGTGGCGCTCACCTCTTACATCGAACAGGGAATCAGCTCGCC 4550  
Qy 4549 GAAACATTTCAACAGAGGCAATCGGGTGTGTGAAAACAGCAACAGCAGCGGAGGT 4608  
Db 4551 GAAACATTTCAACAGAGGCAATCGGGTGTGTGAAAACAGCAACAGCAGCGGAGGT 4610  
Qy 4609 GCTGCTCCCGTGTGGGAATCCAGTGGGCGGACCTTCGAAGCCTTCTGGCGGAGCATATG 4668  
Db 4611 GCTGCTCCCGTGTGGGAATCCAGTGGGCGGACCTTCGAAGCCTTCTGGCGGAGCATATG 4670  
Qy 4669 TGGAAATTTCAACAGCGGATCAATATTTAGCAGGCTTGTCCACTCTGCTGGCAACCCC 4728  
Db 4671 TGGAAATTTCAACAGCGGATCAATATTTAGCAGGCTTGTCCACTCTGCTGGCAACCCC 4730



Db 6991 GAAGCCTGTAAAGCTGACGCCCCCAATTGGCCAGATCTAAATTTGGCTATGGGCGAAAG 6950  
Qy 6949 GACGTCCGGAACTTATCAGCAAGCGCGTTAAACACATCCGCTCCGTGTGGAAGACTTG 7008  
Db 6951 GACGTCCGGAACTTATCAGCAAGCGCGTTAAACACATCCGCTCCGTGTGGAAGACTTG 7010  
Qy 7009 GTGAAGACACTGAGACACCAATTTGACACCACTCATGTGCAAAAATAGGTTTCTGC 7068  
Db 7011 CTGAAGACACTGAGACACCAATTTGACACCACTCATGTGCAAAAATAGGTTTCTGC 7070  
Qy 7069 GTCAACACAGAAAGGGGGCGCAAGCAGCTGCCCTTATCGTATATCCAGATTTGGG 7128  
Db 7071 GTCAACACAGAAAGGGGGCGCAAGCAGCTGCCCTTATCGTATATCCAGATTTGGG 7130  
Qy 7129 GTTCGTGTGCGAGAAATGGCCCTTTACGATGTGTCTCCACCTCCCTCAGGCGCGT 7188  
Db 7131 GTTCGTGTGCGAGAAATGGCCCTTTACGATGTGTCTCCACCTCCCTCAGGCGCGT 7190  
Qy 7189 ATGGGCTCTTCATACGGAATCCAAATCTCTCTGACAGCGGGTCGAGTTCTCTGCTGAAT 7248  
Db 7191 ATGGGCTCTTCATACGGAATCCAAATCTCTCTGACAGCGGGTCGAGTTCTCTGCTGAAT 7250  
Qy 7249 GCCTGGAAGCGGAAGAAATGCCCTTATGGGCTTCGCATATGACACCCGCTGTTTGTACTCA 7308  
Db 7251 GCCTGGAAGCGGAAGAAATGCCCTTATGGGCTTCGCATATGACACCCGCTGTTTGTACTCA 7310  
Qy 7309 ACGTCACTGAGATGACATCCGTTGTGAGAGTCAATCTACCAATGTTGTGACTTGGCC 7368  
Db 7311 ACGTCACTGAGATGACATCCGTTGTGAGAGTCAATCTACCAATGTTGTGACTTGGCC 7370  
Qy 7369 CCGCAAGCCAGACAGGCAATAAGTCCCTCACAGAGCGGCTTTACATCGGGGGCCCCCTG 7428  
Db 7371 CCGCAAGCCAGACAGGCAATAAGTCCCTCACAGAGCGGCTTTACATCGGGGGCCCCCTG 7430  
Qy 7429 ACTAATTTAAAGGCGAGAACTCGGCTATCGCGGTGCGCGCGAGCGGTGTACTGACG 7488  
Db 7431 ACTAATTTAAAGGCGAGAACTCGGCTATCGCGGTGCGCGCGAGCGGTGTACTGACG 7490  
Qy 7489 ACAGCTCGGGTAATACCTTCATGTTACTTGAAGCCGCTGGGCTGTGAGCTGCG 7548  
Db 7491 ACCAGCTCGGGTAATACCTTCATGTTACTTGAAGCCGCTGGGCTGTGAGCTGCG 7550  
Qy 7549 AAGCTCAGGACTGACGATGCTGTATGCGGAGACGACCTTGTCTGTGTAAGC 7608  
Db 7551 AAGCTCAGGACTGACGATGCTGTATGCGGAGACGACCTTGTCTGTGTAAGC 7610  
Qy 7609 GCGGGACCCAGAGGACGAGGAGGCTTACGGGCTTTCAGGAGGCTATGACTAGATAC 7668  
Db 7611 GCGGGACCCAGAGGAGGAGGCTTACGGGCTTTCAGGAGGCTATGACTAGATAC 7670  
Qy 7669 TCTGCCCCCTTGGGACCCGCCAAACCAAGATAACGACTTGGAGTTGATAACATATGC 7728  
Db 7671 TCTGCCCCCTTGGGACCCGCCAAACCAAGATAACGACTTGGAGTTGATAACATATGC 7730  
Qy 7729 TCTCCAAATGTGCTGCGGACGATGATCGGCAAGAGGTGTACTATCTCACCCGT 7788  
Db 7731 TCTCCAAATGTGCTGCGGACGATGATCGGCAAGAGGTGTACTATCTCACCCGT 7790  
Qy 7789 GACCCACACACCCCTTGGCGGGCTGCTGGGAGACAGTACACACTCCAGTCAAT 7848  
Db 7791 GACCCACACACCCCTTGGCGGGCTGCTGGGAGACAGTACACACTCCAGTCAAT 7850  
Qy 7849 TCTGCTAGGCAACATCATATGATGCGCCCACTTGGGCAAGGATGATCTCTGATG 7908  
Db 7851 TCTGCTAGGCAACATCATATGATGCGCCCACTTGGGCAAGGATGATCTCTGATG 7910  
Qy 7909 ACTCATTTCTTCCATCTCTTAGCTCAGGAACAACCTTGAAGCCCTAGATTGTGAG 7968  
Db 7911 ACTCATTTCTTCCATCTCTTAGCTCAGGAACAACCTTGAAGCCCTAGATTGTGAG 7970  
Qy 7969 ATCTAGGGGCTGTTACTTCCATTTGAGCCACTTGACCTACCTCAGATCATTTCAACGACTC 8028  
Db 7971 ATCTAGGGGCTGTTACTTCCATTTGAGCCACTTGACCTACCTCAGATCATTTCAACGACTC 8030

Qy 8029 CATGSCCTTAGCGCAATTTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGCT 8088  
Db 8031 CAGGSCCTTAGCGCAATTTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGCT 8090  
Qy 8089 TCATGCTCAGAAACTTGGGGTACCGCCTTGCAGTCTGAGAGCATCGGCGCAGAAGT 8148  
Db 8091 TCATGCTCAGAAACTTGGGGTACCGCCTTGCAGTCTGAGAGCATCGGCGCAGAAGT 8150  
Qy 8149 GTCCGCGTAGCTACTCTCCAGGGGGGGGCTGCCACTTGTGGCAAGTACCTCTTC 8208  
Db 8151 GTCCGCGTAGCTACTCTCCAGGGGGGGGCTGCCACTTGTGGCAAGTACCTCTTC 8210  
Qy 8209 AACTGGGCACTAAGGACCAAGCTCAAACTCACTCCAAATCCCGGCTGCTCCAGTTGGAT 8268  
Db 8211 AACTGGGCACTAAGGACCAAGCTCAAACTCACTCCAAATCCCGGCTGCTCCAGTTGGAT 8270  
Qy 8269 TTATCCAGCTGGTTCGTTGCTGGTTACAGCGGGGAGACATATATACAGCCTGTCTCGT 8328  
Db 8271 TTATCCAGCTGGTTCGTTGCTGGTTACAGCGGGGAGACATATATACAGCCTGTCTCGT 8330  
Qy 8329 GCCGACCCCGCTGGTTCACTGTGTGCTTACTCCTACTTTCTGTAGGGGTAGGCATCTAT 8388  
Db 8331 GCCGACCCCGCTGGTTCACTGTGTGCTTACTCCTACTTTCTGTAGGGGTAGGCATCTAT 8390  
Qy 8389 CTACTCCCAACCGATGAACGGGAGCTAAACACATCCAGGCCAAATAGGCCATCTCTGTTT 8448  
Db 8391 CTACTCCCAACCGATGAACGGGAGCTAAACACATCCAGGCCAAATAGGCCATCTCTGTTT 8450  
Qy 8449 TTTCCCTTT 8508  
Db 8451 TTTCCCTTT 8510  
Qy 8509 TTTTTCCTTT 8568  
Db 8511 TTTTTCCTTT 8570  
Qy 8569 TAGCTGTGAAGGTCCTGAGCCCTGACCTGACAGAGTGTCTGATACCTGCGCTCTCTGC 8628  
Db 8571 TAGCTGTGAAGGTCCTGAGCCCTGACCTGACAGAGTGTCTGATACCTGCGCTCTCTGC 8630  
Qy 8629 AGATCAAGT 8637  
Db 8631 AGATCAAGT 8639

## RESULT 2

US-10-789-355-24  
; Sequence 24, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; TITLE OF INVENTION: HEPATITIS C VIRUS  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10/789,355  
; CURRENT FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10/029,907  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FabSeq for Windows Version 4.0  
; SEQ ID NO 24  
; LENGTH: 8638  
; TYPE: DNA  
; ORGANISM: HCV  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1802) ... (8407)  
US-10-789-355-24

Query Match 99.5%; Score 8590.3; DB 1; Length 8638;  
Best Local Similarity 99.7%; Pred. No. 0;



QY	2150	GGAAGTTGCTGGGGGTCATTATATGTCCAAATATGGCTCTCATGAAATGTGGCCGCACTGACAG	2209
DB	2151	GGAAGTTGCTGGGGGTCATTATATGTCCAAATATGGCTCTCATGAAATGTGGCCGCACTGACAG	2210
QY	2210	GTAAGTACGTTTATGACACATCTCACCCACTGCGGACTGGGGCCACGCGGGCTCTACGAG	2269
DB	2211	GTAAGTACGTTTATGACACATCTCACCCACTGCGGACTGGGGCCACGCGGGCTCTACGAG	2270
QY	2270	ACCTTGGCGTGGCAGTTGAGCCCGTCTTCTCTGTATATGGAGCAAAAGGTATATCACTT	2329
DB	2271	ACCTTGGCGTGGCAGTTGAGCCCGTCTTCTCTGTATATGGAGCAAAAGGTATATCACTT	2330
QY	2330	GGGGGGCAGACACCCGCGGTGTGGGACATCATCTTGGGGCTTGCCTCTCCGCCCGCA	2389
DB	2331	GGGGGGCAGACACCCGCGGTGTGGGACATCATCTTGGGGCTTGCCTCTCCGCCCGCA	2390
QY	2390	GGGGGGGAGATACATCTGGGACCGGCAGACGCTTGAAGGGCAGGGGTGGCGACTCC	2449
DB	2391	GGGGGGGAGATACATCTGGGACCGGCAGACGCTTGAAGGGCAGGGGTGGCGACTCC	2450
QY	2450	TCGCGCTATTACGGCTACTTCCCAAACAGACGCGAGGCGCTACTTTGGTGTGATATCACTA	2509
DB	2451	TCGCGCTATTACGGCTACTTCCCAAACAGACGCGAGGCGCTACTTTGGTGTGATATCACTA	2510
QY	2510	GCCTCACAGGCGGGACAGGAACACAGTTCGAGGGGGAGGTCCAAATGGTCTTCCAACGCAA	2569
DB	2511	GCCTCACAGGCGGGACAGGAACACAGTTCGAGGGGGAGGTCCAAATGGTCTTCCAACGCAA	2570
QY	2570	CACATCTTCTCGCGACCTGCGTCAAATGGCGTGTGTGGACTGTCTATCATGGTCCG	2629
DB	2571	CACATCTTCTCGCGACCTGCGTCAAATGGCGTGTGTGGACTGTCTATCATGGTCCG	2630
QY	2630	GCTCAAAGACCTTTCGCGGCCAAAGGCGCCAAATCACCCAAATGTACCAAATGTGTGAC	2689
DB	2631	GCTCAAAGACCTTTCGCGGCCAAAGGCGCCAAATCACCCAAATGTACCAAATGTGTGAC	2690
QY	2690	AGGACCTCGTGGCTGGCAAGCGCCCCCGGGCGCGTTCCTTGACACCATGCACTTGGC	2749
DB	2691	AGGACCTCGTGGCTGGCAAGCGCCCCCGGGCGCGTTCCTTGACACCATGCACTTGGC	2750
QY	2750	GCACTCGGACCTTTACTTGGTTCAGAGGCAATGCGGATGTCAATTCGGTGGCGCGGG	2809
DB	2751	GCACTCGGACCTTTACTTGGTTCAGAGGCAATGCGGATGTCAATTCGGTGGCGCGGG	2810
QY	2810	GCGACAGCGGGGAGCCTACTCTCCCGCAGGCGCGCTCTCTAATTGCAAGGGCTCTTCG	2869
DB	2811	GCGACAGCGGGGAGCCTACTCTCCCGCAGGCGCGCTCTCTAATTGCAAGGGCTCTTCG	2870
QY	2870	GCGTCCACTGCTCTGCCCCCTCGGGGCAACGCTGTGGGCATCTTTTCGGGCTGCGGTGCA	2929
DB	2871	GCGTCCACTGCTCTGCCCCCTCGGGGCAACGCTGTGGGCATCTTTTCGGGCTGCGGTGCA	2930
QY	2930	CCGAGGGGTTGCAAGGCGGTGCACTTTGTATCCCGTCGAGTCTATGGAAACCACTATGC	2989
DB	2931	CCGAGGGGTTGCAAGGCGGTGCACTTTGTATCCCGTCGAGTCTATGGAAACCACTATGC	2990
QY	2990	GGTCCC CGGTCTTACAGGACAACTCGTCCCTCGGCGGTAACGCGACATTCACGGTGG	3049
DB	2991	GGTCCC CGGTCTTACAGGACAACTCGTCCCTCGGCGGTAACGCGACATTCACGGTGG	3050
QY	3050	CCCATCTACACGCGCCCTACTTGGTAGCGGCAAGACACTAAGGTGCGCGCTGCGTATGCA	3109
DB	3051	CCCATCTACACGCGCCCTACTTGGTAGCGGCAAGACACTAAGGTGCGCGCTGCGTATGCA	3110
QY	3110	CCCAAGGGTATAGGTGCTTGTCTGTAAACCCGTCCGTCCCGCAACCTTAGTTCGGGG	3169
DB	3111	CCCAAGGGTATAGGTGCTTGTCTGTAAACCCGTCCGTCCCGCAACCTTAGTTCGGGG	3170
QY	3170	CGTATATGCTTAAGGCAATGTTATCGACCCTAACATCAGAACCGGGGTAAAGCAATCA	3229
DB	3171	CGTATATGCTTAAGGCAATGTTATCGACCCTAACATCAGAACCGGGGTAAAGCAATCA	3230
QY	3230	CCACGGGTGCCCATCAGCTACTCCACCTATGGCAAGTTTCTTTGCGCAGCGGTGTGCT	3289

3231	DB	CCACGGGTGCCCCCATCAAGTATCCCACTTGGCAGATTTCTTGGCCAGCGGTGGTGTCT	3290
3290	QY	CTGGGGGGCGCTATGATCATCATATAATGTGATGAGTGCACATCAACTGACTCGACCACTA	3349
3291	DB	CTGGGGGGCGCTATGATCATCATATAATGTGATGAGTGCACATCAACTGACTCGACCACTA	3350
3350	QY	TCTCTGGGCATCGGCACAGCTCTCGGACCAAGCGGAGACGGCTGGAGCGCGAATCTCGTCGTGC	3409
3351	DB	TCTCTGGGCATCGGCACAGCTCTCGGACCAAGCGGAGACGGCTGGAGCGCGAATCTCGTCGTGC	3410
3410	QY	TGCGCAACCGGTACCGCTCCGGGATCGGTACCGTGCACATCCAAACATCGAGGAGGTGG	3469
3411	DB	TGCGCAACCGGTACCGCTCCGGGATCGGTACCGTGCACATCCAAACATCGAGGAGGTGG	3470
3470	QY	CTCTGTCCAGCACTGGAGAAATCCCCTTTTATGSCAAAGCCATCCCCATCGAGACCATCA	3529
3471	DB	CTCTGTCCAGCACTGGAGAAATCCCCTTTTATGSCAAAGCCATCCCCATCGAGACCATCA	3530
3530	QY	AGGGGGGGAGGCACCTCATTTTTCTGCCATTTCCAAAGAGAAATGTGATGAGCTCGCGCGCA	3589
3531	DB	AGGGGGGGAGGCACCTCATTTTTCTGCCATTTCCAAAGAGAAATGTGATGAGCTCGCGCGCA	3590
3590	QY	AGTGTTCGGGCTTCGCACTCAATGTGTAGCATATTAACGGGGGCTTGATGTATCGGTCA	3649
3591	DB	AGTGTTCGGGCTTCGCACTCAATGTGTAGCATATTAACGGGGGCTTGATGTATCGGTCA	3650
3650	QY	TACCAACTAGCGGAGAGCTTGTTCGTAGCAACGGACGCTCTAATGACGGCTTTTACCG	3709
3651	DB	TACCAACTAGCGGAGAGCTTGTTCGTAGCAACGGACGCTCTAATGACGGCTTTTACCG	3710
3710	QY	GCGATTTCCAGCTCAGTGATCGACTGCAATACATGTGTCAACCAGACAGTGCATTTTCAGCC	3769
3711	DB	GCGATTTCCAGCTCAGTGATCGACTGCAATACATGTGTCAACCAGACAGTGCATTTTCAGCC	3770
3770	QY	TGGACCCGACCTTACCATTTGAGACGACCGGTGCCAAGACGGGTGTCAACGCTCGC	3829
3771	DB	TGGACCCGACCTTACCATTTGAGACGACCGGTGCCAAGACGGGTGTCAACGCTCGC	3830
3830	QY	ACGGGGGAGGAGGACTGTGAGGGGAGGATGGCATTTACAGTTTGTGACTCCAGGAG	3889
3831	DB	ACGGGGGAGGAGGACTGTGAGGGGAGGATGGCATTTACAGTTTGTGACTCCAGGAG	3890
3890	QY	AACGGCCCTCGGGCATGTTTCGATTCCTCGGTCTGTGCGAGTGTCTATGACGGGGCTGTG	3949
3891	DB	AACGGCCCTCGGGCATGTTTCGATTCCTCGGTCTGTGCGAGTGTCTATGACGGGGCTGTG	3950
3950	QY	CTTGTGTACGAGCTCACGCCCGCGAGACCTCAGTTAGTTTGCGGGCTTACCTAAACACAC	4009
3951	DB	CTTGTGTACGAGCTCACGCCCGCGAGACCTCAGTTAGTTTGCGGGCTTACCTAAACACAC	4010
4010	QY	CAGGGTTGCCCTCTGCCAGGACCATCTGGAGTTCTGGAGAGGCTCTTTTACGGCCTCA	4069
4011	DB	CAGGGTTGCCCTCTGCCAGGACCATCTGGAGTTCTGGAGAGGCTCTTTTACGGCCTCA	4070
4070	QY	CCCAATAGACGCCCAATTTCTTGTCCAGACTAAGCAGGAGGAGACAACTTCCCTTACC	4129
4071	DB	CCCAATAGACGCCCAATTTCTTGTCCAGACTAAGCAGGAGGAGACAACTTCCCTTACC	4130
4130	QY	TGGTATGATACAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACC	4189
4131	DB	TGGTATGATACAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACC	4190
4190	QY	AAATGTGGAAGTGTCTCATACGGCTTAAAGCCTAGCTGCAACGGGCCAAACGGCCCTGCTGT	4249
4191	DB	AAATGTGGAAGTGTCTCATACGGCTTAAAGCCTAGCTGCAACGGGCCAAACGGCCCTGCTGT	4250
4250	QY	ATAGGCTGGGAGCCGTTCAAAACGAGGTTTACCAACACACACCCATACCAATACATCA	4309
4251	DB	ATAGGCTGGGAGCCGTTCAAAACGAGGTTTACCAACACACACCCATACCAATACATCA	4310
4310	QY	TGGCATGATGTTCGGCTGACCTCGGAGGTCGTCAACGAGCACTTCGGGTGCTGTAGCGGAG	4369

Db	4311	TGGCATGCAATGTCGGCTGACCTGGAGGTGCTACGAGCACTTGGGTGCTGTAGGCGGAG	4370	QY	5450	AAACCACTGCCCCATGTGGAGCAGATCACCGGACATGTGAAACCGTTTCCATGAGGA	5509
QY	4370	TTCTAGCAGCTTGGCGCGGTATTGCTGTGACAAACAGCAGCGTGGTCAATTGTGGCGAGGA	4429	Db	5451	AAACCACTGCCCATGTGGAGCAGATCACCGGACATGTGAAACCGTTTCCATGAGGA	5510
Db	4371	TTCTAGCAGCTTGGCGCGGTATTGCTGTGACAAACAGCAGCGTGGTCAATTGTGGCGAGGA	4430	QY	5510	TCGTGGGGCTTAGGACCTGTAGTAACACGTGGCAATGGAACAATTCCCCCAATTAAACGGGTACA	5569
QY	4430	TCATCTTGTTCGGAAGCGCGCCATCAATCCCGACAGGGAAGTCTTTAACCGGGAGTTTCG	4489	Db	5511	TCGTGGGGCTTAGGACCTGTAGTAACACGTGGCAATGGAACAATTCCCCCAATTAAACGGGTACA	5570
Db	4431	TCATCTTGTTCGGAAGCGCGCCATCAATCCCGACAGGGAAGTCTTTAACCGGGAGTTTCG	4490	QY	5570	CCACGGGCGCTGACACGCCCTCCCGGGCCAAATTTCTTAGGGCGCTGTGGCGGGTGG	5629
QY	4490	ATGAGATGGAAGTGGCGCTCAACCTCCCTTACATCGAAACAGGGAATCGACCTGCCG	4549	Db	5571	CCACGGGCGCTTGCACGCCCTCCCGGGCCAAATTTCTTAGGGCGCTGTGGCGGGTGG	5630
Db	4491	ATGAGATGGAAGTGGCGCTCAACCTCCCTTACATCGAAACAGGGAATCGACCTGCCG	4550	QY	5630	CTGCTGAGGAGTAGCTGAGGTTACGGGGTGGGGATTTCCACTAGCTGACGGGCAATGA	5689
QY	4550	AACAAATTCAAACAGAGGCAATCGGTTGCTGCAACACAGCCACACAGCAGCGGAGGCTG	4609	Db	5631	CTGCTGAGGAGTAGCTGAGGTTACGGGGTGGGGATTTCCACTAGCTGACGGGCAATGA	5690
Db	4551	AACAAATTCAAACAGAGGCAATCGGTTGCTGCAACACAGCCACACAGCAGCGGAGGCTG	4610	QY	5690	CCAATGACAAAGTAAAGTGGCCGTTCAGGGTTCGGGCCCGGAAATTCCTTACAGAAATGG	5749
QY	4610	CTGCTCCCGTGGTGGAAATCCAAAGTGGCGGACCTCGAAAGCCTTCTGGGGCGAAGCATATGT	4669	Db	5691	CCAATGACAAAGTAAAGTGGCCGTTCAGGGTTCGGGCCCGGAAATTCCTTACAGAAATGG	5750
Db	4611	CTGCTCCCGTGGTGGAAATCCAAAGTGGCGGACCTCGAAAGCCTTCTGGGGCGAAGCATATGT	4670	QY	5750	ATGGGGTGGCGTTGACAGGTTACGCTCCAGCGTGCACAAACCCCTCTCTACGGGAGGAGTCA	5809
QY	4670	GGAAATTCATCAGCGGGGATCAATAATTTAGCAGGCTGTCTCACTCTGCTGGCAACCCCG	4730	Db	5751	ATGGGGTGGCGTTGACAGGTTACGCTCCAGCGTGCACAAACCCCTCTCTACGGGAGGAGTCA	5810
Db	4671	GGAAATTCATCAGCGGGGATCAATAATTTAGCAGGCTGTCTCACTCTGCTGGCAACCCCG	4730	QY	5810	CATTCTGGTTCGGGCTCAATCAATACCTGTGGTTCAGCTCCCATGCGAGCCCGAAC	5869
QY	4730	CGATAGCATCACTGATGGGATTCACAGCCTCTATCACCAGCGGCTCACACCCACATATA	4789	Db	5811	CATTCTGGTTCGGGCTCAATCAATACCTGTGGTTCAGCTCCCATGCGAGCCCGAAC	5870
Db	4731	CGATAGCATCACTGATGGGATTCACAGCCTCTATCACCAGCGGCTCACACCCACATATA	4790	QY	5870	CGGACGTAGCAGTGTCTCACTTCCATGTCTCACGACCCCTCCACATTAACGGCGGAGACGG	5929
QY	4790	CCCTCTCTTTAAATCTCTGGGGGATGGGTGGCGGCCCAACTTGTCTCTCCAGCGGCTG	4849	Db	5871	CGGACGTAGCAGTGTCTCACTTCCATGTCTCACGACCCCTCCACATTAACGGCGGAGACGG	5930
Db	4791	CCCTCTCTTTAAATCTCTGGGGGATGGGTGGCGGCCCAACTTGTCTCTCCAGCGGCTG	4850	QY	5930	CTAAGCGTAGGCTGGCCAGGGGATCTCCCGCTCTCTGGCCAGCTCATCAGCTAGCCAGC	5989
QY	4850	CTTCTGCTTTCTGAGGCGCGGCATCGCTGGAGCGGCTGTGGCAGCATAGGCTTTGGGA	4909	Db	5931	CTAAGCGTAGGCTGGCCAGGGGATCTCCCGCTCTCTGGCCAGCTCATCAGCTAGCCAGC	5990
Db	4851	CTTCTGCTTTCTGAGGCGCGGCATCGCTGGAGCGGCTGTGGCAGCATAGGCTTTGGGA	4910	QY	5990	TGCTGTGGCGCTTCTTGAAGGCAACATGCACTACCCGCTCATGACTCCCGGACGCTGAC	6049
QY	4910	AGGTGCTTGTGGATATTTTGGCAGTTATGGAGCAGGGGTGGCAGCGGCGCTGTGGCCT	4969	Db	5991	TGCTGTGGCGCTTCTTGAAGGCAACATGCACTACCCGCTCATGACTCCCGGACGCTGAC	6050
Db	4911	AGGTGCTTGTGGATATTTTGGCAGTTATGGAGCAGGGGTGGCAGCGGCGCTGTGGCCT	4970	QY	6050	TCATCGAGGCGCAACCTCTCTGTGGCGGACGAGATGGCGGGGAAATCAACCCCGCTGGAGT	6109
QY	4970	TTAAGGTCTATGACGGCGGATGCCCTCCACCGAGGACCTGGTTAACTACTCTCTGCTA	5029	Db	6051	TCATCGAGGCGCAACCTCTCTGTGGCGGACGAGATGGCGGGGAAATCAACCCCGCTGGAGT	6110
Db	4971	TTAAGGTCTATGACGGCGGATGCCCTCCACCGAGGACCTGGTTAACTACTCTCTGCTA	5030	QY	6110	CAGAAAATAAGGTAGTAAATTTTGGACTCTTTTGGAGCTCTTTCGAGCCGCTCCAGCGGAGGAGTGA	6169
QY	5030	TCCTCTCCCTTGGCGGCTTGTGCTGGGGTGTGTCGCGAGCGATATCTGCTGGCAGC	5089	Db	6111	CAGAAAATAAGGTAGTAAATTTTGGACTCTTTTGGAGCTCTTTCGAGCCGCTCCAGCGGAGGAGTGA	6170
Db	5031	TCCTCTCCCTTGGCGGCTTGTGCTGGGGTGTGTCGCGAGCGATATCTGCTGGCAGC	5090	QY	6170	GGGAAGTATCCGTTCCGGCGGAGATCTCTGGAGGTCCAGGAAATTCCTTCGAGCGATGC	6229
QY	5090	TGGGCGCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTTCGTTCCGGG	5149	Db	6171	GGGAAGTATCCGTTCCGGCGGAGATCTCTGGAGGTCCAGGAAATTTCCCTCGAGCGATGC	6230
Db	5091	TGGGCGCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTTCGTTCCGGG	5150	QY	6230	CCATATGGGACCGCGGATTAACAACTTCACTGTAGAGTCTCTGGAAGGACCCCGACT	6289
QY	5150	GTAACCAAGTCTCCCGCAGCAGTATGTGCTGAGAGGAGCGCTGACAGCGTGTCACTC	5209	Db	6231	CCATATGGGACCGCGGATTAACAACTTCACTGTAGAGTCTCTGGAAGGACCCCGACT	6290
Db	5151	GTAACCAAGTCTCCCGCAGCAGTATGTGCTGAGAGGAGCGCTGACAGCGTGTCACTC	5210	QY	6290	ACGTCCCTTCCAGTGGTACACGGGTGTCCAATTCGCCCTTCCCAAGGCCCTCCGATACCA	6349
QY	5210	AGATCTCTCTAGTCTTACCATCACTCAGCTGTCTGAGAGGAGCTTCAACAGTGAATCAACG	5269	Db	6291	ACGTCCCTTCCAGTGGTACACGGGTGTCCAATTCGCCCTTCCCAAGGCCCTCCGATACCA	6350
Db	5211	AGATCTCTCTAGTCTTACCATCACTCAGCTGTCTGAGAGGAGCTTCAACAGTGAATCAACG	5270	QY	6350	CTCAACGGAGGAGGAGCGGTGTCTGTGCAAGATCTACCGTGTCTTCTGCTTGGCGG	6409
QY	5270	AGGACTGCTCCAGCCATGCTCCGGCTCGTGGCTTAAGAGATGTTTGGGATGGATATGCA	5329	Db	6351	CTCAACGGAGGAGGAGCGGTGTCTGTGCAAGATCTACCGTGTCTTCTGCTTGGCGG	6410
Db	5271	AGGACTGCTCCAGCCATGCTCCGGCTCGTGGCTTAAGAGATGTTTGGGATGGATATGCA	5330	QY	6410	AGCTCGCCACAAAGACCTTCCGCGAGCTCCGAAATTCGTCGAGATTCGACACGGGACCGCAA	6469
QY	5330	CGGTGTTGACTGATTTCAAGACCTGGCTCCAGTCCAAAGCTCTCCCGGATTTGCCGGGAG	5389	Db	6411	AGCTCGCCACAAAGACCTTCCGCGAGCTCCGAAATTCGTCGAGATTCGACACGGGACCGCAA	6470
Db	5331	CGGTGTTGACTGATTTCAAGACCTGGCTCCAGTCCAAAGCTCTCCCGGATTTGCCGGGAG	5390	QY	6470	CGGCTCTCTTGAACAGCGGCGGATCCGAGCGGCGGATCCGAGCGGCGGATTCGAGTCTGCTACT	6529
QY	5390	TCCCTCTCTTCAATGTCAGAGGAGTCTGCGGGGCGGAGCGGATCATGC	5449	Db	6471	CGGCTCTCTTGAACAGCGGCGGATCCGAGCGGCGGATCCGAGCGGCGGATTCGAGTCTGCTACT	6530
Db	5391	TCCCTCTCTTCAATGTCAGAGGAGTCTGCGGGGCGGAGCGGATCATGC	5450				

QY	6530	CTCTCATGCCCCCTTGAAGGGGAGCCGGGGGATCCCGATCTCAGCGACGGGCTTTGGT	6589
DB	6531	CTCTCATGCCCCCTTGAAGGGGAGCCGGGGGATCCCGATCTCAGCGACGGGCTTTGGT	6590
QY	6590	CTACCTTAAGCGAGGAGCTAGTAGAGACGCTCTCTGCTCGATGCTCTACACATGGA	6649
DB	6591	CTACCTTAAGCGAGGAGCTAGTAGAGACGCTCTCTGCTCGATGCTCTACACATGGA	6650
QY	6650	CAGCGCCCTGTATCAGCCCATGCGCTGCGGAGGAAACCAAGCTGCCCATCAATGCACTGA	6709
DB	6651	CAGCGCCCTGTATCAGCCCATGCGCTGCGGAGGAAACCAAGCTGCCCATCAATGCACTGA	6710
QY	6710	GCAACTCTTTGCTCCGTCACCAACACTTGCTCTATGCTACAACATCTCGCAGCGCAAGCC	6769
DB	6711	GCAACTCTTTGCTCCGTCACCAACACTTGCTCTATGCTACAACATCTCGCAGCGCAAGCC	6770
QY	6770	TGGCGGAGAAAGGTCACTTTTGA CAGACTGAGGTCTTGGAGCAGCACTACCGGGACG	6829
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QY	6830	TGCTCAAGGAGATGAAGGCGAAGCGCTCCACAGTTAAGGCTTAACTTTCTATCCGTGGAGG	6889
DB	6831	TGCTCAAGGAGATGAAGGCGAAGCGCTCCACAGTTAAGGCTTAACTTTCTATCCGTGGAGG	6890
QY	6890	AAGCTCTTAAGCTGACGCCCCCACAATTGCGGCCAGATCTAAATTTGGCTATGGGGCAAGG	6949
DB	6891	AAGCTCTTAAGCTGACGCCCCCACAATTGCGGCCAGATCTAAATTTGGCTATGGGGCAAGG	6950
QY	6950	ACGTCCGGAACCTATTCAGCAAGCGCTTAAACACATCCGCTCCGTGGAAGGACTTGC	7009
DB	6951	ACGTCCGGAACCTATTCAGCAAGCGCTTAAACACATCCGCTCCGTGGAAGGACTTGC	7010
QY	7010	TGGAAGACCTGAGACACCAATTTGACACCACTCATGCGCAAAAATGAGTTTCTGCG	7069
DB	7011	TGGAAGACCTGAGACACCAATTTGACACCACTCATGCGCAAAAATGAGTTTCTGCG	7070
QY	7070	TCCAAACAGAGAGGGGGCGGCAAGCTAGCTTATCGCTTATCCAGATTTGGGGG	7129
DB	7071	TCCAAACAGAGAGGGGGCGGCAAGCTAGCTTATCGCTTATCCAGATTTGGGGG	7130
QY	7130	TTCCGTGTGTCGAGAAATGGCCCTTTACGATGCTCTCCACCCTCCCTCAGCCCGTGA	7189
DB	7131	TTCCGTGTGTCGAGAAATGGCCCTTTACGATGCTCTCCACCCTCCCTCAGCCCGTGA	7190
QY	7190	TGGGCTCTTCAACGATTTCCAAATCTCTCTGGACAGCGGGTCTGCTGCTGAATG	7249
DB	7191	TGGGCTCTTCAACGATTTCCAAATCTCTCTGGACAGCGGGTCTGCTGCTGAATG	7250
QY	7250	CCTGGAAGCGAAGAAATGCCCTATGCGCTTTCGCATATGACACCCGCTGTTTGACTCAA	7309
DB	7251	CCTGGAAGCGAAGAAATGCCCTATGCGCTTTCGCATATGACACCCGCTGTTTGACTCAA	7310
QY	7310	CGGTCACTGAGAAATGACATCCGCTGTGAGAGTCAATCTACCAATGTTGTGACTTGGCCC	7369
DB	7311	CGGTCACTGAGAAATGACATCCGCTGTGAGAGTCAATCTACCAATGTTGTGACTTGGCCC	7370
QY	7370	CCGAAGCCAGACAGGCAATAAGTCTGCTCAGAGCGGCTTTACATCGGGGGCCCCCTGA	7429
DB	7371	CCGAAGCCAGACAGGCAATAAGTCTGCTCAGAGCGGCTTTACATCGGGGGCCCCCTGA	7430
QY	7430	CTAATTTCTAAGGGCAGAACTGCGGCTATGCGCGGTGCGCGAGGGGTGTAAGCA	7489
DB	7431	CTAATTTCTAAGGGCAGAACTGCGGCTATGCGCGGTGCGCGAGGGGTGTAAGCA	7490
QY	7490	CCAGCTCGCGTAAATACCTTCAATGTTATTTGAAGGCGCTGCGGCTGTGAGCTGCGA	7549
DB	7491	CCAGCTCGCGTAAATACCTTCAATGTTATTTGAAGGCGCTGCGGCTGTGAGCTGCGA	7550
QY	7550	AGCTCCAGGACTGCAAGTCTGATGCGGAGACGACCTTGTGCTATCTGTGAAAGCG	7609
DB	7551	AGCTCCAGGACTGCAAGTCTGATGCGGAGACGACCTTGTGCTATCTGTGAAAGCG	7610
QY	7610	CGGGGACCCAGAGGACGAGGCGCTACGGGCTTACGGGCTATGACTAGATACT	7669

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US-10-789-355-7
; Sequence 7, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 8638
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
US-10-789-355-7

Query Match          99.2%; Score 8567.3; DB 1; Length 8638;
Best Local Similarity 99.5%; Pred. No. 0;
Matches 8609; Conservative 0; Mismatches 17; Indels 23; Gaps 2;

QY 1 GCACGCCCCGATGTTGGGGGACACTCCACATAGATCACTCCCTCTGTGAGGAACCTACTG 60
DB 1 GCACGCCCCGATGTTGGGGGACACTCCACATAGATCACTCCCTCTGTGAGGAACCTACTG 60

QY 61 TCCTTCACGAGAAAGGCTTAGCCATGGGCTTAGTATGAGTGTCTGCGAGCCTCCAGGAC 120
DB 61 TCCTTCACGAGAAAGGCTTAGCCATGGGCTTAGTATGAGTGTCTGCGAGCCTCCAGGAC 120

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QY 241 GCAGACTGCTAGCCGAGTAGTGTGGGTGCGAAAGGCTTGTGTACTGCTCCCTGATAGG 300
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QY 301 GTGCTTCGAGTCCCGGGAGGTCTCGTAGACCGTGACCATGACGACGAATCCTAAAC 360
DB 301 GTGCTTCGAGTCCCGGGAGGTCTCGTAGACCGTGACCATGACGACGAATCCTAAAC 360

QY 361 CTCAAAGAAAACCAAAGGGCGGCCATGATTGAACAAGATGGATTGCACGCGAGTTCTC 420
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QY 541 ACCTGTCCGCTGCTGAATGAATGACGACGAGGCGCGGCTATCGTGGCTGGCCA 600
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QY 661 TGCTATTGGGGGAGTAGTCCCGGGGAGGATCTCTCTGTCTCATCTCACCTTGCTCTGCCGAGA 720
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721 AAGTATCCATCATGGCTGATGCAATGCGGGCTGCAATAGCTTGTATCCGGCTACTCTGCC 780
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DB 8630 AGATCAAGT 8638

## RESULT 4

US-10-789-355-25  
; Sequence 25, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; TITLE OF INVENTION: HEPATITIS C VIRUS  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10/789,355  
; CURRENT FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10/029,907  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 25  
; LENGTH: 8638  
; TYPE: DNA  
; ORGANISM: HCV  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1802)...(8407)  
US-10-789-355-25

Query Match 99.2%; Score 8566.3; DB 1; Length 8638;  
Best Local Similarity 99.5%; Pred. No. 0;  
Matches 8608; Conservative 0; Mismatches 17; Indels 23; Gaps 2;

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DB 62 CTTTCACGAGAAAGCGTCTAGCCATGCGTGTAGTATGAGTGTGCTGAGGCTCCAGGACC 121  
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Db	1371	CGAGCATTCCTAGGGTCTTTCCCTCTCGCAAGGAATCAAGGTCTGTGAAATGCG	1430	QY	2510	GCCTCACAGCGCGGACAGGACACAGGTCTGAGGGAGGTCCAAAGTGTCTCCACCGCAA	2569
QY	1430	TGAAGGAAGCAGTTCTCTGGAAGCTTCTTGAAGACAAACAAAGTCTGTAGGACCCCTTT	1489	Db	2511	GCCTCACAGCGCGGACAGGAAACAGGTCTGAGGGAGGTCCAAAGTGTCTCCACCGCAA	2570
Db	1431	TGAAGGAAGCAGTTCTCTGGAAGCTTCTTGAAGACAAACAAAGTCTGTAGGACCCCTTT	1490	QY	2570	CACAACTTTCTGCGGACCTGCGTCAATGGCGTGTGTGGAGTGTCTATCATGTTGCGCG	2629
QY	1490	GCAGGACGCGAAGCCCCCACTCGGCGACAGTGCCTCTGGGCGCAAAAGCCACAGTGTAT	1549	Db	2571	CACAACTTTCTGCGGACCTGCGTCAATGGCGTGTGTGGAGTGTCTATCATGTTGCGCG	2630
Db	1491	GCAGGACGCGAAGCCCCCACTCGGCGACAGTGCCTCTGGGCGCAAAAGCCACAGTGTAT	1550	QY	2630	GCTCAAAGACCTTTGCGCGCGGCGCAAAAGGCGCCAAATCAACCAATGTATCAACAAATGTGAGAC	2689
QY	1550	AAGATACACCTGCAAGGCGGCGCAACCCCAAGTGCACAGTTGTGAGTTGATAGTTGG	1609	Db	2631	GCTCAAAGACCTTTGCGCGCGGCGCAAAAGGCGCCAAATCAACCAATGTATCAACAAATGTGAGAC	2690
Db	1551	AAGATACACCTGCAAGGCGGCGCAACCCCAAGTGCACAGTTGTGAGTTGATAGTTGG	1610	QY	2690	AGGACCTCGTGGCGGCAAGGCGCGCGCGCGCGCGCGCTTCTTGACACCATGACCTGCG	2749
QY	1610	AAAGAGTCAATGCTCTCTCAAGCGTATTCAACAGAGGGCTGAAGATGCCAGAAAG	1669	Db	2691	AGGACCTCGTGGCGGCAAGGCGCGCGCGCGCGCTTCTTGACACCATGACCTGCG	2750
Db	1611	AAAGAGTCAATGCTCTCTCAAGCGTATTCAACAGAGGGCTGAAGATGCCAGAAAG	1670	QY	2750	GCAGCTCGGACCTTTACTTGTGTACAGGCGATGCCGATGTCAATTCGGTGCAGCGCGG	2809
QY	1670	TACCCCATTTGATGGGATCTGATCTGGGCGCTCGGTGCACATGCTTTACATGCTTTAGT	1729	Db	2751	GCAGCTCGGACCTTTACTTGTGTACAGGCGATGCCGATGTCAATTCGGTGCAGCGCGG	2810
Db	1671	TACCCCATTTGATGGGATCTGATCTGGGCGCTCGGTGCACATGCTTTACATGCTTTAGT	1730	QY	2810	GCAGCAGCAGGGGAGGCGCTACTCTCCCGCAGGCCGCTCTCTTACTTGAAGGGCTCTTCGG	2869
QY	1730	CGAGGTTAAAAAAGCTCTAGGCGCGCGAAACACAGCGGACGTGCTTTCTTTGAAAAAC	1789	Db	2811	GCAGCAGCAGGGGAGGCGCTACTCTCCCGCAGGCCGCTCTCTTACTTGAAGGGCTCTTCGG	2870
Db	1731	CGAGGTTAAAAAAGCTCTAGGCGCGCGAAACACAGCGGACGTGCTTTCTTTGAAAAAC	1790	QY	2870	CGGTGCTACTGCTCTGCGCGGCGACGCTGTGGGCACTTTTGGGGTCTGGGTGTGCA	2929
QY	1790	ACGATAATACATGACCGGAGATGCGAGCATCTGCGGAGGCGCGGTTTTCGTAGGTC	1849	Db	2871	CGGTGCTACTGCTCTGCGCGGCGACGCTGTGGGCACTTTTGGGGTCTGGGTGTGCA	2930
Db	1791	ACGATAATACATGACCGGAGATGCGAGCATCTGCGGAGGCGCGGTTTTCGTAGGTC	1850	QY	2930	CCCAGGGGTTGCGAAGCGGTGGACTTTGTACCGTCGAGTCTATGGAACCACTATGC	2989
QY	1850	TGATCTCTTGACCTTGTACCGCATTAAGCTGTTCTCGCTAGGCTCATATGTTGGT	1909	Db	2931	CCCAGGGGTTGCGAAGCGGTGGACTTTGTACCGTCGAGTCTATGGAACCACTATGC	2990
Db	1851	TGATCTCTTGACCTTGTACCGCATTAAGCTGTTCTCGCTAGGCTCATATGTTGGT	1910	QY	2990	GGTCCCGGCTTCTACCGCAACTCGTCCCTCCCGCGCGTACCGCAGACATTTCCAGGTG	3049
QY	1910	TACAAATTTTATCACCAGGCGGAGGACACTTTCAGAGTGTGATCCCGCCCTCAACG	1969	Db	2991	GGTCCCGGCTTCTACCGCAACTCGTCCCTCCCGCGCGTACCGCAGACATTTCCAGGTG	3050
Db	1911	TACAAATTTTATCACCAGGCGGAGGACACTTTCAGAGTGTGATCCCGCCCTCAACG	1970	QY	3050	CCCATCTACACGCGCTTACTGCTAGCGGCAAGAGCACTAAAGGTGCGGCTGCGTATGCA	3109
QY	1970	TTGCGGGGGCGCGATCGCGTCACTCTCTCAGTGCAGGATCCACCCAGAGCTAATCT	2029	Db	3051	CCCATCTACACGCGCTTACTGCTAGCGGCAAGAGCACTAAAGGTGCGGCTGCGTATGCA	3110
Db	1971	TTGCGGGGGCGCGATCGCGTCACTCTCTCAGTGCAGGATCCACCCAGAGCTAATCT	2030	QY	3110	CCCAGGGTATAAGGTGCTTGTCTGAACCGTCTCGCGCGCGCCCTAGGTTCGGGG	3169
QY	2030	TTACCATCAACAAATCTTGTCTGCGCATATCTGCTGCTCACTGCTGCTGCTGCTGCTG	2089	Db	3111	CCCAGGGTATAAGGTGCTTGTCTGAACCGTCTCGCGCGCGCCCTAGGTTCGGGG	3170
Db	2031	TTACCATCAACAAATCTTGTCTGCGCATATCTGCTGCTCACTGCTGCTGCTGCTGCTG	2090	QY	3170	CGTATATGCTTAAGGCAATGCTATCGACCTTAACATCAGAACCCGGGTAAAGCACTCA	3229
QY	2090	TAACCAAGTGCCTTCTGCGGCGCAACAGGCTCATTCGTCGATGCTGCTGCTGCTGCTG	2149	Db	3171	CGTATATGCTTAAGGCAATGCTATCGACCTTAACATCAGAACCCGGGTAAAGCACTCA	3230
Db	2091	TAACCAAGTGCCTTCTGCGGCGCAACAGGCTCATTCGTCGATGCTGCTGCTGCTGCTG	2150	QY	3230	CCACGGGTGCGCCCATCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	3289
QY	2150	GGAAGGTTGCTGGGGTCAATATGTCGCAATGCTCTCATGAAGTTGGCGGCTGACAG	2209	Db	3231	CCACGGGTGCGCCCATCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	3290
Db	2151	GGAAGGTTGCTGGGGTCAATATGTCGCAATGCTCTCATGAAGTTGGCGGCTGACAG	2210	QY	3290	CTGGGGGGGCTATGACATCATATATATGATGAGTGCCTCAACTGACTGACCACTA	3349
QY	2210	GTACGTACGTTTATGACATCTACCCCACTGCGGGAAGTGGCGGCTGCGGCTGACAG	2269	Db	3291	CTGGGGGGGCTATGACATCATATATATGATGAGTGCCTCAACTGACTGACCACTA	3350
Db	2211	GTACGTACGTTTATGACATCTACCCCACTGCGGGAAGTGGCGGCTGCGGCTGACAG	2270	QY	3350	TCCTTGGGCATCGGCACAGTCTGGACCAAGCGGAGCGGCTGGAGCGGCTGCTGCTGCTG	3409
QY	2270	ACCTTGGGTGGAGTTGAGCGGCTGCTCTCTGATATGAGACCAAGTTTATCACT	2329	Db	3351	TCCTTGGGCATCGGCACAGTCTGGACCAAGCGGAGCGGCTGGAGCGGCTGCTGCTGCTG	3410
Db	2271	ACCTTGGGTGGAGTTGAGCGGCTGCTCTCTGATATGAGACCAAGTTTATCACT	2330	QY	3410	TCGCGACCGCTTACCGCTCCGGGATCGGTCAACGCTGCCACATCCAAACATCGAGGAGGTG	3469
QY	2330	GGGGGGGAGACCGCGGCTGTGGGACATCATCTTTGGGCGCTGCGGCTGCGCGCGCA	2389	Db	3411	TCGCGACCGCTTACCGCTCCGGGATCGGTCAACGCTGCCACATCCAAACATCGAGGAGGTG	3470
Db	2331	GGGGGGGAGACCGCGGCTGTGGGACATCATCTTTGGGCGCTGCGGCTGCGCGCGCA	2390	QY	3470	CTCTGTCCAGCCTCGGAAATCCCTTTTATGGAAGGCAATCCCTCATCGAGACCATCA	3529
QY	2390	GGGGGGGAGATACATCTGGGACCGGCAAGAGCTTGAAGGGGAGGGGTGGGCACTCC	2449	Db	3471	CTCTGTCCAGCCTCGGAAATCCCTTTTATGGAAGGCAATCCCTCATCGAGACCATCA	3530
Db	2391	GGGGGGGAGATACATCTGGGACCGGCAAGAGCTTGAAGGGGAGGGGTGGGCACTCC	2450	QY	3530	AGGGGGGAGGACCTCATTTTCTGCCATTCAGAGAGAAATGTGATGAGCTCGCGCA	3589
QY	2450	TCGGCGCTATTACGGCCTACTCCCAACAGAGCGAGGCGCTACTTGGCTGCATCATCACTA	2509				

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3530 QY AGGAGGGAGGACCTCATTTCTGCAATTCBAAGAGAAATGATGAGCTCGCGCGA 3589  
3531 Db AGGAGGGAGGACCTCATTTCTGCAATTCBAAGAGAAATGATGAGCTCGCGCGA 3590  
3590 QY AGCTGTCCGGCTCGGACTCAATGTGTAGCATATTTACCGGGGCTTGTATGATCCGTCA 3649  
3591 Db AGCTGTCCGGCTCGGACTCAATGTGTAGCATATTTACCGGGGCTTGTATGATCCGTCA 3650  
3650 QY TACCAACTAGCGAGACGTCATTTGCTAGCAACGAGCGCTCTAATGACGGGCTTTACCG 3709  
3651 Db TACCAACTAGCGAGACGTCATTTGCTAGCAACGAGCGCTCTAATGACGGGCTTTACCG 3710  
3710 QY GCGATTTGCACTCAGTGATCGACTGAATACATGTTGTACCCAGACAGTGCATTCAGCC 3769  
3711 Db GCGATTTGCACTCAGTGATCGACTGAATACATGTTGTACCCAGACAGTGCATTCAGCC 3770  
3770 QY TGGACCCGACCTTACCATTGAGACGACGACCGTGCCACAAGACGGGTTCAAGCTCGC 3829  
3771 Db TGGACCCGACCTTACCATTGAGACGACGACCGTGCCACAAGACGGGTTCAAGCTCGC 3830  
3830 QY AGCGGCGAGCGAGGACTGGTAGGGGAGGATGGGCATTTACAGTTTGTGACTCCAGGAG 3889  
3831 Db AGCGGCGAGCGAGGACTGGTAGGGGAGGATGGGCATTTACAGTTTGTGACTCCAGGAG 3890  
3890 QY AACGGCCCTCGGCACTGTTGATTTCTCGGTTCTGTGCGAGTGTATGACGCGGGCTGTG 3949  
3891 Db AACGGCCCTCGGCACTGTTGATTTCTCGGTTCTGTGCGAGTGTATGACGCGGGCTGTG 3950  
3950 QY CTTGGTACGAGCTACGCGCGCGAGACCTCAGTTAGTTTGGGGCTTACCTTAAACACAC 4009  
3951 Db CTTGGTACGAGCTACGCGCGCGAGACCTCAGTTAGTTTGGGGCTTACCTTAAACACAC 4010  
4010 QY CAGGGTTGCGGCTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTTTACAGGCTCA 4069  
4011 Db CAGGGTTGCGGCTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTTTACAGGCTCA 4070  
4070 QY CCACATAGACGCCCATTTCTTGTCCAGACTAAGCAGGCGAGAGCAACTTCCCTTACC 4129  
4071 Db CCACATAGACGCCCATTTCTTGTCCAGACTAAGCAGGCGAGAGCAACTTCCCTTACC 4130  
4130 QY TGGTAGCATACAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCGTGGGACC 4189

4131 Db TGGTAGCATACAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCATCTGGTGGACC 4190  
4190 QY AAATGTGGAAGTGTCTCATACGGCTAAGCTAGCTGACGGGCCAAACGCCCTTGTGT 4249  
4191 Db AAATGTGGAAGTGTCTCATACGGCTAAGCTAGCTGACGGGCCAAACGCCCTTGTGT 4250  
4250 QY ATAGGCTGGGAGCGGTTCAAAAAGAGGTTACTACACACACCCCATAAACCAATACATCA 4309  
4251 Db ATAGGCTGGGAGCGGTTCAAAAAGAGGTTACTACACACACCCCATAAACCAATACATCA 4310  
4310 QY TGGCATGCTATGCTCGCTGACCTGGAGGTGCTCAGGAGACCTGGGTGCTGTAGCGGAG 4369  
4311 Db TGGCATGCTATGCTCGCTGACCTGGAGGTGCTCAGGAGCACTGGGTGCTGTAGCGGAG 4370  
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4490 QY ATGAGATGGAAGTGCCTCAACACCTCCTTATCATCGAAACAGGAAATGCAAGTTCGCG 4549  
4491 Db ATGAGATGGAAGTGCCTCAACACCTCCTTATCATCGAAACAGGAAATGCAAGTTCGCG 4550  
4550 QY AACAAATCAACAGAGGCAATCGGGTGTGTCGAAACAGCCACCAAGCAGCGGAGGCTG 4609  
4551 Db AACAAATCAACAGAGGCAATCGGGTGTGTCGAAACAGCCACCAAGCAGCGGAGGCTG 4610  
4610 QY CTGCTCCGCTGTGGAATCAGAGTGGCGGACCTCGAAGCCTTCTGGGCGAAGCATATGT 4669  
4611 Db CTGCTCCGCTGTGGAATCAGAGTGGCGGACCTCGAAGCCTTCTGGGCGAAGCATATGT 4670  
4670 QY GGAATTTTCATCAGCGGATCAATATTTAGCAGGCTTTGTCCACTCTGCTTGCACACCCCG 4729  
4671 Db GGAATTTTCATCAGCGGATCAATATTTAGCAGGCTTTGTCCACTCTGCTTGCACACCCCG 4730  
4730 QY CGATAGCATCATGATGGCATTCACAGCTCTATCAACAGCCGCTCACCACCAACATA 4789  
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4790 QY CCCTCTGTTTAAACATCCTGGGGGATGGGTGGCGGCCCAACTTGTCTCTCCAGCGCTG 4849  
4791 Db CCCTCTGTTTAAACATCCTGGGGGATGGGTGGCGGCCCAACTTGTCTCTCCAGCGCTG 4850  
4850 QY CTTCTGCTTTCTAGGCGCGGCATCGCTGAGCGGCTGTTGGGAGCATAGGCTTTGGGA 4909  
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4910 QY AGTGTCTTGTGATATTTTGGCAGGTTATGAGCAGGGTGGCAGCGCTGCTGGGCT 4969  
4911 Db AGTGTCTTGTGATATTTTGGCAGGTTATGAGCAGGGTGGCAGCGCTGCTGGGCT 4970  
4970 QY TTAAGTCTAGGCGCGGAGATGCCCTCCACCGAGGACCTGGTTAACTACTTCCCTGCTA 5029  
4971 Db TTAAGTCTAGGCGCGGAGATGCCCTCCACCGAGGACCTGGTTAACTACTTCCCTGCTA 5030  
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5151 Db GTAAACAAGCTTCCCAACGACATATGTGCTGAGAGCGAGCGCTGACGACGCTGCTC 5210  
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Db 8631 TGCAGATCAAGT 8642

RESULT 6  
US-10-789-355-6  
; Sequence 6, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; TITLE OF INVENTION: HEPATITIS C VIRUS  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10/789,355  
; CURRENT FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10/029,907  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 6  
; LENGTH: 8638  
; TYPE: DNA  
; ORGANISM: HCV  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1802)...(8407)  
US-10-789-355-6

Query Match 99.1%; Score 8563.1; DB 1; Length 8638;  
Best Local Similarity 99.5%; Pred. No. 0;  
Matches 8606; Conservative 0; Mismatches 19; Indels 23; Gaps 2;

QY 2 CCAGCCCCCGATTGGGGCGGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTGT 61  
Db 2 CCAGCCCCCGATTGGGGCGGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTGT 61  
QY 62 CTTCAAGCAAGAGCGTCTAGCCATGGCTTATGATGCTGTGAGGCTCCAGGACC 121  
Db 62 CTTCAAGCAAGAGCGTCTAGCCATGGCTTATGATGCTGTGAGGCTCCAGGACC 121  
QY 122 CCCCCTCCGGGAGAGCCATAGTGGTCTGCGGAACCGGTGAGTACACCGGAATTCGACG 181  
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QY 182 ACGACCGGCTCTTTCTTTGGATCAACCGCTCAATGCTGAGATTTGGGGCTGCCCGC 241  
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Db 302 TGCTTGGAGTGCCTCCGGAGGTCTCTGAGACCGTGCACATGAGCAGATCTCTAAACC 361  
QY 362 TCAAGAAACCAACAAAGCGCGCCATGATTTGAACAAGATGATTTGATGATGATGATGAT 421  
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QY 422 GGCGCTTGGGTGAGAGGCTATTTCGGCTATGATGATGAGCAACAAGCAATCGGCTGCTC 481  
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Db 2631 GCTCAAAGACCTTTGCGGCGCCAAAGGGGCCAATCACCCAAATGTACCAAAATGTGGACC 2690  
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Db 2691 AGGACCTCTGCGCTGCGAAGCGCCCCCGGGGGCGGTTCCTTGACACCATGACACTGG 2750  
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Db 3651 TACCAACTAGCGAGAGCTGATTTGCTGTAGCAACGAGCGCTCTAATGACGGGCTTTACCG 3710  
Qy 3710 GCGATTTGCACTGATGATCGATGCAATACATGTGTCAACCGACAGTGTGACGCTTACGCC 3769  
Db 3711 GCGATTTGCACTGATGATCGATGCAATACATGTGTCAACCGACAGTGTGACGCTTACGCC 3770

Qy 3770 TGGACCGGACCTTTCACCTTTGAGACGACGACCGGTGCCAAGAGCGCGGTGTCACTGCGC 3829  
Db 3771 TGGACCGGACCTTTCACCTTTGAGACGACGACCGGTGCCAAGAGCGCGGTGTCACTGCGC 3830  
Qy 3830 AGCGGGAGGACGAGACTGTGTAGGGGCAAGGATTTGAGCAATTTACAGTTTGTGACTCCAGAG 3889  
Db 3831 AGCGGGAGGACGAGACTGTGTAGGGGCAAGGATTTGAGCAATTTACAGTTTGTGACTCCAGAG 3890  
Qy 3890 AACGGCCCTCGGGCATGTTTCGATTCCTCGGTTCGTGCGAGTGTATGACCGGGGCTGTG 3949  
Db 3891 AACGGCCCTCGGGCATGTTTCGATTCCTCGGTTCGTGCGAGTGTATGACCGGGGCTGTG 3950  
Qy 3950 CTTGGTACGAGCTACACGCCCGCCGAGACCTCAGTTTAGTTGCGGCTTACCTAAACACAC 4009  
Db 3951 CTTGGTACGAGCTACACGCCCGCCGAGACCTCAGTTTAGTTGCGGCTTACCTAAACACAC 4010  
Qy 4010 CAGGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTTACAGCCCTCA 4069  
Db 4011 CAGGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTTACAGCCCTCA 4070  
Qy 4070 CCAACATAGACGCCCATTTCTTGTCCAGACTAAGCAGGAGGAGAGCAACTTCCCTTACC 4129  
Db 4071 CCAACATAGACGCCCATTTCTTGTCCAGACTAAGCAGGAGGAGAGCAACTTCCCTTACC 4130  
Qy 4130 TGGTAGCATACCAAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACTCATCTGTTGGGACC 4189  
Db 4131 TGGTAGCATACCAAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACTCATCTGTTGGGACC 4190  
Qy 4190 AAATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACCGGGCCAAACGCCCTTGTGT 4249  
Db 4191 AAATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACCGGGCCAAACGCCCTTGTGT 4250  
Qy 4250 ATAGCTTGGGAGCGCTTCAAAAAGAGGTTTACCAACACACCCCATTAACCAATACATCA 4309  
Db 4251 ATAGCTTGGGAGCGCTTCAAAAAGAGGTTTACCAACACACCCCATTAACCAATACATCA 4310  
Qy 4310 TGGCATCATGTCGGCTGACCTGAGGTGCTGACGAGCACCTGGGTGCTGGTAGGGGAG 4369  
Db 4311 TGGCATCATGTCGGCTGACCTGAGGTGCTGACGAGCACCTGGGTGCTGGTAGGGGAG 4370  
Qy 4370 TCTAGCAGCTCTCGGCGCGTATTTGCCCTGACAAACAGGAGCGGTGCTTGTGGGAGGAG 4429  
Db 4371 TCTAGCAGCTCTCGGCGCGTATTTGCCCTGACAAACAGGAGCGGTGCTTGTGGGAGGAG 4430  
Qy 4430 TCACTTTTTCGGAAAGCGGCCATCATTTCCCGACAGGGAAGTCTTTTACCGGGAGTTGG 4489  
Db 4431 TCACTTTTTCGGAAAGCGGCCATCATTTCCCGACAGGGAAGTCTTTTACCGGGAGTTGG 4490  
Qy 4490 ATGAGATGGAGAGTGGCGCTCACACCTCCCTTACATCGAACGGAATGACGCTCGCG 4549  
Db 4491 ATGAGATGGAGAGTGGCGCTCACACCTCCCTTACATCGAACGGAATGACGCTCGCG 4550  
Qy 4550 AACAAATCAAACAGAGCAATCGGTTGTGCAAAACAGCAACCAAGCAAGCGGAGGCTG 4609  
Db 4551 AACAAATCAAACAGAGCAATCGGTTGTGCAAAACAGCAACCAAGCAAGCGGAGGCTG 4610  
Qy 4610 CTGCTCCCGTGGTGAATTCGAAGTGGCGGACCTCGAAGCCCTTCTGGGCGAAGCATATGT 4669  
Db 4611 CTGCTCCCGTGGTGAATTCGAAGTGGCGGACCTCGAAGCCCTTCTGGGCGAAGCATATGT 4670  
Qy 4670 GGAATTTTCATCAGCGGGATCAATATTTAGCAGGCTTGTCTCATCTGCTGCGGAACCCCG 4729  
Db 4671 GGAATTTTCATCAGCGGGATCAATATTTAGCAGGCTTGTCTCATCTGCTGCGGAACCCCG 4730  
Qy 4730 CGATAGCATCACTGATGCAATTCACCGCTCTTACCCAGCCCGCTCACACCCACACATA 4789  
Db 4731 CGATAGCATCACTGATGCAATTCACCGCTCTTATCACCGCCCGCTCACACCCACACATA 4790  
Qy 4790 CCCTCTCTGTTTAAACATCTCTGGGGGATGGGTGGCGCCGCCAACCTTGTCTCTCCAGCGCTG 4849  
Db 4791 CCCTCTCTGTTTAAACATCTCTGGGGGATGGGTGGCGCCGCCAACCTTGTCTCTCCAGCGCTG 4850

QY	4850	CTTCTGCTTTCTGAGGCGCCGGCATCGCTGAGCGGCTGTGTGGCAGCATAGCGCTTGGA	4909
Db	4851	CTTCTGCTTTCTGAGGCGCCGGCATCGCTGAGCGGCTGTGTGGCAGCATAGCGCTTGGA	4910
QY	4910	AGGTGCTTGTGGATATTTTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCGCTCGTGGCT	4969
Db	4911	AGGTGCTTGTGGATATTTTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCGCTCGTGGCT	4970
QY	4970	TTAAGGTCATGAGCGGCGAGATGCCCTCCACCGAGGACCTGGTTAACTACTCTCCCTGCTA	5029
Db	4971	TTAAGGTCATGAGCGGCGAGATGCCCTCCACCGAGGACCTGGTTAACTACTCTCCCTGCTA	5030
QY	5030	TCCTCTCCCTTGGCGCCCTAGTCTGCTGGGGGTGTGTGGCAGCGATATCTGCGTGGCAGC	5089
Db	5031	TCCTCTCCCTTGGCGCCCTAGTCTGCTGGGGGTGTGTGGCAGCGATATCTGCGTGGCAGC	5090
QY	5090	TGGGCCCAGGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTGCTTTCGGGG	5149
Db	5091	TGGGCCCAGGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTGCTTTCGGGG	5150
QY	5150	GTAACCACTCTCCCCACGACATGTGCTGAGAGGAGCGCTGCAGCAGTGTCACTC	5209
Db	5151	GTAACCACTCTCCCCACGACATGTGCTGAGAGGAGCGCTGCAGCAGTGTCACTC	5210
QY	5210	AGATCTCTCTAGTCTTTACCATCACTCAGCTGTCTGAAGAGGCTTCAACAGTGAATCAACG	5269
Db	5211	AGATCTCTCTAGTCTTTACCATCACTCAGCTGTCTGAAGAGGCTTCAACAGTGAATCAACG	5270
QY	5270	AGGACTGCTCCACGCCCATGCTCCGGCTCGTGGCTAAGAGATGTTTGGGATTTGGATATGCA	5329
Db	5271	AGGACTGCTCCACGCCCATGCTCCGGCTCGTGGCTAAGAGATGTTTGGGATTTGGATATGCA	5330
QY	5330	CGGTGTGACTGATTTCAAGACCTTGGCTCCAGTCCAAAGCTCTCGCCCGGATTTGCCGGAG	5389
Db	5331	CGGTGTGACTGATTTCAAGACCTTGGCTCCAGTCCAAAGCTCTCGCCCGGATTTGCCGGAG	5390
QY	5390	TCCCTCTTCTCAATGTCAACGTGGGTACAAAGGAGTCTGGCGGGGCGAGCGGCATATGC	5449
Db	5391	TCCCTCTTCTCAATGTCAACGTGGGTACAAAGGAGTCTGGCGGGGCGAGCGGCATATGC	5450
QY	5450	AAACCACTGTCCTCATGTGGAGCAGATCACCGGACATGTGAATAAATCGTTCATGAGGA	5509
Db	5451	AAACCACTGTCCTCATGTGGAGCAGATCACCGGACATGTGAATAAATCGTTCATGAGGA	5510
QY	5510	TCGTGGGCTTAGGACTGTAGTAAACAGTGGCATGGAACATTTCCCATTAACCGCTTACA	5569
Db	5511	TCGTGGGCTTAGGACTGTAGTAAACAGTGGCATGGAACATTTCCCATTAACCGCTTACA	5570
QY	5570	CCAGGGCCCTGCAGCGCTTCCCGGCGCAATTTATTTCTAGGGCGCTGTGGGGGTGG	5629
Db	5571	CCAGGGCCCTGCAGCGCTTCCCGGCGCAATTTATTTCTAGGGCGCTGTGGGGGTGG	5630
QY	5630	CTGCTGAGGAGTACGTGGAGTTTACCGGGTGGGGATTTCCACTACGTGACCGGGCATGA	5689
Db	5631	CTGCTGAGGAGTACGTGGAGTTTACCGGGTGGGGATTTCCACTACGTGACCGGGCATGA	5690
QY	5690	CCAATGACAAAGTAAAGTGCCTGTGTCAGTTTCGGGCCCGGAAATTTCTTCAAGAAGTGG	5749
Db	5691	CCAATGACAAAGTAAAGTGCCTGTGTCAGTTTCGGGCCCGGAAATTTCTTCAAGAAGTGG	5750
QY	5750	ATGGGGTGGGTTGCAACAGTACGCTCCAGCGTGGCAACCCCTCTTACGGGAGAGGTCA	5809
Db	5751	ATGGGGTGGGTTGCAACAGTACGCTCCAGCGTGGCAACCCCTCTTACGGGAGAGGTCA	5810
QY	5810	CATTCTGTGTGGGCTCAATCAATACCTGTGTGGGTACAGCTCCCATGCGAGCGGCAAC	5869
Db	5811	CATTCTGTGTGGGCTCAATCAATACCTGTGTGGGTACAGCTCCCATGCGAGCGGCAAC	5870
QY	5870	CGGACGTAGCAGTGTCACTTCCATGCTCACCGACCCCTCCCAATTTACCGCGGAGACGG	5929
Db	5871	CGGACGTAGCAGTGTCACTTCCATGCTCACCGACCCCTCCCAATTTACCGCGGAGACGG	5930
QY	5930	CTAAGCGTAGGCTGGCCAGGGGATCTCCCCCTCTCTTGGCCAGCTCATCAGTAGCCAGC	5989

Db	5931	CTAAGCGTAGGCTGGCCAGGGGATCTCCCCCTCTCTTGGCCAGCTCATCAGCTAGCCAGC	5990
QY	5990	TGTCTGCGCCCTCTCTTGAAGGCAACATGCATCTACCCGTCATGACTCCCGGAGCGTGAAC	6049
Db	5991	TGTCTGCGCCCTCTCTTGAAGGCAACATGCATCTACCCGTCATGACTCCCGGAGCGTGAAC	6050
QY	6050	TCATCGAGGCCAACTCTCTGTGGGGCAGGAGATGGGGGGAACATCACTCCCGCTGGAGT	6109
Db	6051	TCATCGAGGCCAACTCTCTGTGGGGCAGGAGATGGGGGGAACATCACTCCCGCTGGAGT	6110
QY	6110	CAGAAAATAAGGTAGTAAATTTTGGACTCTTTTGGAGCCGCTCCAAGCGGAGGATGAGA	6169
Db	6111	CAGAAAATAAGGTAGTAAATTTTGGACTCTTTTGGAGCCGCTCCAAGCGGAGGATGAGA	6170
QY	6170	GGGAAGTATCCGTTCCGCGCGAGATCTGCGGAGGTCCAGGAAATTTCCCTCGAGCGATGC	6229
Db	6171	GGGAAGTATCCGTTCCGCGCGAGATCTGCGGAGGTCCAGGAAATTTCCCTCGAGCGATGC	6230
QY	6230	CCATATGGGCAAGCGCGGATTTACAACTCTCACTGTAGAGTCTCTGGAAGGACCCGAGCT	6289
Db	6231	CCATATGGGCAAGCGCGGATTTACAACTCTCACTGTAGAGTCTCTGGAAGGACCCGAGCT	6290
QY	6290	ACGTCCCTCTCAGTGTGTACAACCGCTTCCATTTGCCGCTGCCAAGGCCCCCTCGATACCAC	6349
Db	6291	ACGTCCCTCTCAGTGTGTACAACCGCTTCCATTTGCCGCTGCCAAGGCCCCCTCGATACCAC	6350
QY	6350	CTTCAACGAGGAGGAGGACGGTGTCTGTCTGTCAGAAATCTACCGTGTCTTCTGCTGGCGG	6409
Db	6351	CTTCAACGAGGAGGAGGACGGTGTCTGTCTGTCAGAAATCTACCGTGTCTTCTGCTGGCGG	6410
QY	6410	AGCTCGCCACAAAGACCTTCCGAGCTCCGAAATCTGTCGGCGCTCGACAGCGCACGGCAA	6469
Db	6411	AGCTCGCCACAAAGACCTTCCGAGCTCCGAAATCTGTCGGCGCTCGACAGCGCACGGCAA	6470
QY	6470	CGGCTCTCTCTGACAGCCCTTCCGACAGCGCGACCGCGGATCCGACGTTGAGTCTGACT	6529
Db	6471	CGGCTCTCTCTGACAGCCCTTCCGACAGCGCGACCGCGGATCCGACGTTGAGTCTGACT	6530
QY	6530	CCTCCATGCCCCCTTTGAGGGGAGCGGGGATFCCCGATCTCAGCGAGCGGCTTTGGT	6589
Db	6531	CCTCCATGCCCCCTTTGAGGGGAGCGGGGATFCCCGATCTCAGCGAGCGGCTTTGGT	6590
QY	6590	CTACCGTAAAGGAGGAGGCTAGTGAAGACGTCGTCTGCTCTGATGTCCTTACATGCA	6649
Db	6591	CTACCGTAAAGGAGGAGGCTAGTGAAGACGTCGTCTGCTCTGATGTCCTTACATGCA	6650
QY	6650	CAGCGCCCTGATCAAGCCATGCGCTCGGAGGAAACCAAGCTGCCCATCAATGCACTGA	6709
Db	6651	CAGCGCCCTGATCAAGCCATGCGCTCGGAGGAAACCAAGCTGCCCATCAATGCACTGA	6710
QY	6710	GCAACTTTTGTCTCCGTCAACCACTTGGTCTTATGTATCAACATCTCGAGCGCAAGCC	6769
Db	6711	GCAACTTTTGTCTCCGTCAACCACTTGGTCTTATGTATCAACATCTCGAGCGCAAGCC	6770
QY	6770	TGCGGCAAGAAAGGTCACTTTTGAAGAATGCGAGGTCCTGGAACCACTTATCCGGGAGC	6829
Db	6771	TGCGGCAAGAAAGGTCACTTTTGAAGAATGCGAGGTCCTGGAACCACTTATCCGGGAGC	6830
QY	6830	TGCTCAAGGAGTGAAGCGGAGGCTCCACAGTTAAGGCTTAACTTCTATCCGTGGAGG	6889
Db	6831	TGCTCAAGGAGTGAAGCGGAGGCTCCACAGTTAAGGCTTAACTTCTATCCGTGGAGG	6890
QY	6890	AAGCTCTTAAGCTGACCGCCCACTTCCGGCCAGATCTTAAATTTTGGCTATGGGGCAAGG	6949
Db	6891	AAGCTCTTAAGCTGACCGCCCACTTCCGGCCAGATCTTAAATTTTGGCTATGGGGCAAGG	6950
QY	6950	ACGTCCGGAACCTTATCCAGCAAGCGCTTAAACCACTCCGCTCCGTGTGGAAGGACTTGC	7009
Db	6951	ACGTCCGGAACCTTATCCAGCAAGCGCTTAAACCACTCCGCTCCGTGTGGAAGGACTTGC	7010
QY	7010	TGGAGGACCTGAGACCAATTTGACACCACTCATGGCAAAATTCAGTTTCTGCG	7069

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Qy 7130 TTGGTGTGTCGAGAGAAATGGCCCTTTTACGATGTGTTCTCACCCCTCCCTCAGCCCGTGA 7189
Db 7131 TTGGTGTGTCGAGAGAAATGGCCCTTTTACGATGTGTTCTCACCCCTCCCTCAGCCCGTGA 7190
Qy 7190 TGGGCTCTTCATACGAGATTCCAATATCTCTCGACAGCGGGTTCGAGTTCTCGTGAATG 7249
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Qy 7490 CCACTCGCGGTAAATACCTCACAATGTTTGAAGCGCGCTGCGGCTGTCGAGCTGCGGA 7549
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Db 7911 CTCAATTTCTTCTCCATCTTCTAGCTCAGGAACAACTTTGAAAAGCCCTAGATTGTGAGA 7970
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Qy 8090 CATGCTCAGGAACCTTGGGGTACCGCCCTTGGAGTCTGAGACATCGGGCCAGAGTG 8149
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Qy 8210 ACTGGGAGTAAAGACCAAGCTCAAACTCACTCAATCCCGGCTGCGTCCAGTTGGATT 8269
Db 8211 ACTGGGAGTAAAGACCAAGCTCAAACTCACTCAATCCCGGCTGCGTCCAGTTGGATT 8270
Qy 8270 TATCCAGCTGTTGCTGTTTACAGCGGGGAGACATATATCAGAGCCTGTCTCGTG 8329
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Qy 8450 TTCCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT 8509
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Qy 8510 TTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT 8569
Db 8511 TTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT 8570
Qy 8570 AGCTGTAAGAGTCCGTCGAGCGCTTGCATGTCAGAGAGTGTGATCTGGCCTCTGCA 8629
Db 8571 AGCTGTAAGAGTCCGTCGAGCGCTTGCATGTCAGAGAGTGTGATCTGGCCTCTGCA 8630
Qy 8630 GATCAAGT 8637
Db 8631 GATCAAGT 8638
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## RESULT 7

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US-10-789-355-5
; Sequence 5, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 8648
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
US-10-789-355-5
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Query Match 99.0%; Score 8552.3; DB 1; Length 8648;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 8609; Conservative 0; Mismatches 17; Indels 33; Gaps 3;
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Qy 1 GCCAGCCCCCGATTGGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTG 60
Db 1 GCCAGCCCCCGATTGGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAATCTACTG 60
Qy 61 TCTTTCAGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTCTGTGAGCCTCCAGGAC 120
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Db 61 TCTTCAAGCAGAAAGCGCTAGCAATGCGTGTAGTATGAGTGTGCTGAGCGCTCCAGGAC 120  
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Db 121 CCCCCTCCCGGAGAGCCATAGTGTCTCGGAAACCGGTGAGTACACCGGAAATGGCCAG 180  
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## RESULT 8

US-10-789-355-4

; Sequence 4, Application US/10789355

; GENERAL INFORMATION:

; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.

; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM

; TITLE OF INVENTION: HEPATITIS C VIRUS

; FILE REFERENCE: 13/083

; CURRENT APPLICATION NUMBER: US/10789,355

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; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 8643
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
US-10-789-355-4

Query Match      98.9%; Score 8542.6; DB 1; Length 8643;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 8601; Conservative 0; Mismatches 24; Indels 28; Gaps 3;

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1910 TACAATATTTATACACAGGGCGAGGCACACTTGCAGATGTGATATCCCGCCCTCAACG 1969  
1911 TACAATATTTATACACAGGGCGAGGCACACTTGCAGATGTGATATCCCGCCCTCAACG 1970  
1970 TTCCGGGGGGCGCGGATGCGGTCTATCTCTCTCAAGTGGCGGATCCACCCAGAGCTAATCT 2029  
1971 TTCCGGGGGGCGCGGATGCGGTCTATCTCTCTCAAGTGGCGGATCCACCCAGAGCTAATCT 2030  
2030 TTACCAATACCAAAATCTTGTCTCGCATATCTCGGTCCACTCATGTGTCTCCAGGCTGGTA 2089  
2031 TTACCAATACCAAAATCTTGTCTCGCATATCTCGGTCCACTCATGTGTCTCCAGGCTGGTA 2090  
2090 TAAACCAAGTGGCGTACTTGTGGCGGCACAGGGGCTCATTTCTGTGATGCATGCTGTGC 2149  
2091 TAAACCAAGTGGCGTACTTGTGGCGGCACAGGGGCTCATTTCTGTGATGCATGCTGTGC 2150  
2150 GGAAGGTGTGGGGGTCAATATGTCCAAATGGCTCTCATGAAGTTGGCGGCACCTGACAG 2209  
2151 GGAAGGTGTGGGGGTCAATATGTCCAAATGGCTCTCATGAAGTTGGCGGCACCTGACAG 2210  
2210 GTAAGTGTATGACCAATCTCACCCACTGCGGACTGGGCGGCGGCTACGAG 2269  
2211 GTAGGTAGTATGACCAATCTCACCCACTGCGGACTGGGCGGCGGCTACGAG 2270  
2270 ACCTTGGGTGGAGTTGAGCCCGTCTTCTGTGATATGGAGACCAAGTTATCACT 2329  
2271 ACCTTGGGTGGAGTTGAGCCCGTCTTCTGTGATATGGAGACCAAGTTATCACT 2330  
2330 GGGGGGAGACACCGGGCGGTGTGGGACATCATCTTGGGCTCTCGCGCGCA 2389  
2331 GGGGGGAGACACCGGGCGGTGTGGGACATCATCTTGGGCTCTCGCGCGCA 2390  
2390 GGGGGGAGAGATACATCTGGGACCGGCAGACAGCTTGAAGGGCAGGGGTGGCGACTCC 2449  
2391 GGGGGGAGAGATACATCTGGGACCGGCAGACAGCTTGAAGGGCAGGGGTGGCGACTCC 2450  
2450 TCGGGCTATTAAGGCTACTTCCGACAGAGCGGAGGCTTCTTGGTGCATCATCACTA 2509  
2451 TCGGGCTATTAAGGCTACTTCCGACAGAGCGGAGGCTTCTTGGTGCATCATCACTA 2510  
2510 GCCTCAGAGCCGGGACAGGAACAGGTTCAGAGGGAGGTCGAAGTGGTCTCCACCGCAA 2569  
2511 GCCTCAGAGCCGGGACAGGAACAGGTTCAGAGGGAGGTCGAAGTGGTCTCCACCGCAA 2570  
2570 CACAATCTTCTGGCGACCTGGGTCAATGGCGTGTGTGGACTGTCTATCATGGTGGCG 2629  
2571 CACAATCTTCTGGCGACCTGGGTCAATGGCGTGTGTGGACTGTCTATCATGGTGGCG 2630  
2630 GCTCAAAGACCTTTCGGCGCCAAAGGGCCCAATFCAACCAATGTACACCAATGTGGACC 2689  
2631 GCTCAAAGACCTTTCGGCGCCAAAGGGCCCAATFCAACCAATGTACACCAATGTGGACC 2690  
2690 AGGACTCGTGGGTGACAGCGCCCGGGGGCGGCTTCTTGACACCATGACCTGGG 2749  
2691 AGGACTCGTGGGTGACAGCGCCCGGGGGCGGCTTCTTGACACCATGACCTGGG 2750  
2750 GCAGCTCGGACCTTTACTTGGTACAGAGGATGCGGATGTCAATTCGGTGGCGGGGG 2809  
2751 GCAGCTCGGACCTTTACTTGGTACAGAGGATGCGGATGTCAATTCGGTGGCGGGGG 2810  
2810 GCGACAGAGGGGAGCTACTCTCCCGCCAGGCGCGCTCTCTACTTGAAGGGCTCTTCGG 2869  
2811 GCGACAGAGGGGAGCTACTCTCTCCCGCCAGGCGCGCTCTCTACTTGAAGGGCTCTTCGG 2870  
2870 GCGGTCACTGTCTTGGCGGCAAGCGGTGGGCGATCTTTCGGGCTGGCGGTGGCA 2929  
2871 GCGGTCACTGTCTTGGCGGCAAGCGGTGGGCGATCTTTCGGGCTGGCGGTGGCA 2930  
2930 CCCGAGGGGTGGCAAGCGGTGGGCTTGTACCGGTGGGCTGTATGGAAACCACTATGC 2989  
2931 CCCGAGGGGTGGCAAGCGGTGGGCTTGTGTACCGGTGGGCTGTATGGAAACCACTATGC 2990

QY 2990 GGTCCCGGTCTTTCACGGAACACTCGTCCCTCCGGCGGTACCGCAGACATTTCCAGGTGG 3049  
DB 2991 GGTCCCGGTCTTTCACGGAACACTCGTCCCTCCGGCGGTACCGCAGACATTTCCAGGTGG 3050  
QY 3050 CCATCTACACGCGCTTACTGTTAGCGGCAAGAGCACTAAGGTGCCGCTCGGTATGCAG 3109  
DB 3051 CCATCTACACGCGCTTACTGTTAGCGGCAAGAGCACTAAGGTGCCGCTCGGTATGCAG 3110  
QY 3110 CCNAGGGTATAGGTGCTTGTCTGAACCGTCCGTCGCGCCACCTAGGTTCGGGG 3169  
DB 3111 CCNAGGGTATAGGTGCTTGTCTGAACCGTCCGTCGCGCCACCTAGGTTCGGGG 3170  
QY 3170 CGTATATGTCTAAGGCACATGGTATCGAACCTTAACATCAGAAACCGGGTAAAGGACATCA 3229  
DB 3171 CGTATATGTCTAAGGCACATGGTATCGAACCTTAACATCAGAAACCGGGTAAAGGACATCA 3230  
QY 3230 CCACGGGTGCCCCCATCACGTACTCCACCTATATGGCAAGTTTCTTCGCGACGGTGTGCT 3289  
DB 3231 CCACGGGTGCCCCCATCACGTACTCCACCTATATGGCAAGTTTCTTCGCGACGGTGTGCT 3290  
QY 3290 CTGGGGGGGCTTATGACATCATATATATGTATGTATGTGCTCAACTGACTCGACCACTA 3349  
DB 3291 CTGGGGGGGCTTATGACATCATATATATGTATGTATGTGCTCAACTGACTCGACCACTA 3350  
QY 3350 TCCTGGGCATCGGCACAGTCTCGACCAAGCGGAGAGCGCTGGAGCGGCACTCTGCTGTCG 3409  
DB 3351 TCCTGGGCATCGGCACAGTCTCGACCAAGCGGAGAGCGCTGGAGCGGCACTCTGCTGTCG 3410  
QY 3410 TCGCACCGCTTACCGCTCCGGGATCGGTACCGTGCACATCTCAAAACATCGAGGAGGTGG 3469  
DB 3411 TCGCACCGCTTACCGCTCCGGGATCGGTACCGTGCACATCTCAAAACATCGAGGAGGTGG 3470  
QY 3470 CTCTGTCCAGCATGTGGAGAAATCCCTTTTATGGCAAAAGCCATCCCCATCGAGACATCA 3529  
DB 3471 CTCTGTCCAGCATGTGGAGAAATCCCTTTTATGGCAAAAGCCATCCCCATCGAGACATCA 3530  
QY 3530 AGGGGGGGGACCTCTCAATTTCTGCCATTCCTCAAGAGAAATGTATGAGCTCGCGCGCA 3589  
DB 3531 AGGGGGGGGAGGACCTCTCAATTTCTGCCATTCCTCAAGAGAAATGTATGAGCTCGCGCGCA 3590  
QY 3590 AGCTGTCCGGCTCCGACTCAATGTCTAGCATATTAACGGGGGCTTGTATTCGGTCA 3649  
DB 3591 AGCTGTCCGGCTCCGACTCAATGTCTAGCATATTAACGGGGGCTTGTATTCGGTCA 3650  
QY 3650 TACCAACTAGCGGAGAGCTCATTTGTGTAGCAACGGAACGCTCTATATGACGGGCTTTACCG 3709  
DB 3651 TACCAACTAGCGGAGAGCTCATTTGTGTAGCAACGGAACGCTCTATATGACGGGCTTTACCG 3710  
QY 3710 GCGATTTTCTGACTCAGTGTATCGACTGCAATATGTGTCAACCCAGACAGTTCGACTTCAGCC 3769  
DB 3711 GCGATTTTCTGACTCAGTGTATCGACTGCAATATGTGTCAACCCAGACAGTTCGACTTCAGCC 3770  
QY 3770 TGGACCCGACCTTCAACATTCAGACGACGACCGTGCACAAAGACGCGGTGTCACTCTGC 3829  
DB 3771 TGGACCCGACCTTCAACATTCAGACGACGACCGTGCACAAAGACGCGGTGTCACTCTGC 3830  
QY 3830 AGCGCGGAGGAGGAGCTGTTAGGGGACAGGATGGGCAATTTACAGGTTTGTGACTCCAGGAG 3889  
DB 3831 AGCGCGGAGGAGGAGCTGTTAGGGGACAGGATGGGCAATTTACAGGTTTGTGACTCCAGGAG 3890  
QY 3890 AACGGCCCTCGGGCATGTTCTCGGTTCTGTGCGAGTGTATGACGCGGGGTGTG 3949  
DB 3891 AACGGCCCTCGGGCATGTTCTCGGTTCTGTGCGAGTGTATGACGCGGGGTGTG 3950  
QY 3950 CTTCGTACGAGCTCAACGCGCGGAGACCTCAGTTAGGTTCGGGCTTACCTAAACACAC 4009  
DB 3951 CTTCGTACGAGCTCAACGCGCGGAGACCTCAGTTAGGTTCGGGCTTACCTAAACACAC 4010  
QY 4010 CAGGGTTGCCCGTCTGCGCAGGACCATCTGAGGATCTGGGAGAGCGTCTTTACAGGCTCA 4069  
DB 4011 CAGGGTTGCCCGTCTGCGCAGGACCATCTGAGGATCTGGGAGGCGCTCTTTACAGGCTCA 4070

4070 CCCACATAGACGCCCAATTTCTGTCCAGACTAAGCAGGAGGAGACAACTTCCCTTACC 4129  
4071 CCCACATAGACGCCCAATTTCTGTCCAGACTAAGCAGGAGGAGACAACTTCCCTTACC 4130  
4130 TGGTAGCATACGAGGCTACGGTGTGGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACC 4189  
4131 TGGTAGCATACGAGGCTACGGTGTGGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACC 4190  
4190 AAATGTGGAGTGTCTCATACGGCTAAAGCTTACGCTGACAGGCGCCAAAGCCCTGCTGT 4249  
4191 AAATGTGGAGTGTCTCATACGGCTAAAGCTTACGCTGACAGGCGCCAAAGCCCTGCTGT 4250  
4250 ATAGGCTGGAGCGGTTCAAAAAGAGGTACTACCAACAGGCTTACTACCAACAGGCTTACTACCA 4309  
4251 ATAGGCTGGAGCGGTTCAAAAAGAGGTACTACCAACAGGCTTACTACCAACAGGCTTACTACCA 4310  
4310 TGGCATGCTATGTCGGCTGACCTGAGAGTGTCTACAGAGCACTGGGTCTGGTAGGGCGGAG 4369  
4311 TGGCATGCTATGTCGGCTGACCTGAGAGTGTCTACAGAGCACTGGGTCTGGTAGGGCGGAG 4370  
4370 TCCCTAGCAGCTCGGCGCGGTATTTGGCTGACACAGGCGAGGCTGCTCATTTGTCGGGAGGA 4429  
4371 TCCCTAGCAGCTCGGCGCGGTATTTGGCTGACACAGGCGAGGCTGCTCATTTGTCGGGAGGA 4430  
4430 TCATCTTTGTCGGGAAAGCGGCCCATCATTTCCGACAGGGAAGTCTTTTACCGGGAGTTTCG 4489  
4431 TCATCTTTGTCGGGAAAGCGGCCCATCATTTCCGACAGGGAAGTCTTTTACCGGGAGTTTCG 4490  
4490 ATGAGATGGAAGTGTGCTCTACACCTCCCTTATCATCGAACAGGGAATGCAGCTCGCCG 4549  
4491 ATGAGATGGAAGTGTGCTCTACACCTCCCTTATCATCGAACAGGGAATGCAGCTCGCCG 4550  
4550 AACAAATTCACACAGAGGCAATCGGTTGCTGCAACAGGCAACAGGCAACAGGCAACAGGCGCTG 4609  
4551 AACAAATTCACACAGAGGCAATCGGTTGCTGCAACAGGCAACAGGCAACAGGCAACAGGCGCTG 4610  
4610 CTGCTCCGCTGTGGGAATCCAGTGTGGGACCTCGAAGCTTCTGCGGCGAAGCATATGT 4669  
4611 CTGCTCCGCTGTGGGAATCCAGTGTGGGACCTCGAAGCTTCTGCGGCGAAGCATATGT 4670  
4670 GGAATTTTCATCAGCGGATACAAATATTTAGCAGGCTTGTCACTCTGCTCTGGCAACCCCG 4729  
4671 GGAATTTTCATCAGCGGATACAAATATTTAGCAGGCTTGTCACTCTGCTCTGGCAACCCCG 4730  
4730 CGATAGCATCATGATGGCATTCACAGCTCTATACACGAGCGCTCACCACCAACATA 4789  
4731 CGATAGCATCATGATGGCATTCACAGCTCTATACACGAGCGCTCACCACCAACATA 4790  
4790 CCTCTCTGTTTAAACATCTGGGGGATGGGTGGCCGCCCAACTTGTCTCTCCAGCGCTG 4849  
4791 CCTCTCTGTTTAAACATCTGGGGGATGGGTGGCCGCCCAACTTGTCTCTCCAGCGCTG 4850  
4850 CTTCTGCTTTCTGAGCGCGGCTATCGCTGGAGCGCTGTGGCAGCATAGGCTTGGGA 4909  
4851 CTTCTGCTTTCTGAGCGCGGCTATCGCTGGAGCGCTGTGGCAGCATAGGCTTGGGA 4910  
4910 AGGTGCTGTGATATTTTGGCAGGTTATGGAGCAGGGGTGGCAGCGCGCTCTGTCGCT 4969  
4911 AGGTGCTGTGATATTTTGGCAGGTTATGGAGCAGGGGTGGCAGCGCGCTCTGTCGCT 4970  
4970 TTAAGGTATGAGCGCGGATGCCCCCTCCACGAGGACCTGGTTAACTACTCTCTGCTA 5029  
4971 TTAAGGTATGAGCGCGGATGCCCCCTCCACGAGGACCTGGTTAACTACTCTCTGCTA 5030  
5030 TCTCTCTCTGCGCGCTAGTGTCTGGGGTGTGGTGGCGAGTACTGCGTGGCAGC 5089  
5031 TCTCTCTCTGCGCGCTAGTGTCTGGGGTGTGGTGGCGAGTACTGCGTGGCAGC 5090  
5090 TGGGGCCAGGGAGGGGCTGTGAGTGAACCGGCTGATAGCTTGTGCTTCCGCGG 5149  
5091 TGGGGCCAGGGAGGGGCTGTGAGTGAACCGGCTGATAGCTTGTGCTTCCGCGG 5150  
5150 GTAAACACGCTCTCCCCCAACGCACTATGTGCTGAGAGCGGCTGACGACGCTGTCACTC 5209

5151 GTAAACACGCTCTCCCCCAACGCACTATGTGCTGAGAGCGACGCTGTGCTCACTC 5210  
5210 AGATCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCAACAGTGTGATCAACG 5269  
5211 AGATCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCAACAGTGTGATCAACG 5270  
5270 AGGACTGTCTCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTTGGGATTTGGATATGCA 5329  
5271 AGGACTGTCTCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTTGGGATTTGGATATGCA 5330  
5330 CGGTGTGACTGATTTCAAGACCTTGGCTCCAGTCCAAAGCTCTTCCCGCAATTTGCCGGAG 5389  
5331 CGGTGTGACTGATTTCAAGAGCTTGGCTCCAGTCCAAAGCTCTTCCCGCAATTTGCCGGAG 5390  
5390 TCCCTCTTCTCATGTCAACGCTGGGTACAGGGAGTCTGGCGGGGCGACGCATCATGC 5449  
5391 TCCCTCTTCTCATGTCAACGCTGGGTACAGGGAGTCTGGCGGGGCGACGCATCATGC 5450  
5450 AAACACCTGCTGCTGAGCAGACATCACCGGACATGTGAAACACGCTTCCATGAGGA 5509  
5451 AAACACCTGCTGCTGAGCAGACATCACCGGACATGTGAAACACGCTTCCATGAGGA 5510  
5510 TCGTGGGCTTAGGACCTGTAGTAAACGCTGCGCATGGAACATTTCCCAATTTAACGCTACA 5569  
5511 TCGTGGGCTTAGGACCTGTAGTAAACGCTGCGCATGGAACATTTCCCAATTTAACGCTACA 5570  
5570 CCACGGGCTTGCACGCGCTCCCGGCGCCAAATATTTCTAGGGGCTGTGGCGGGTGG 5629  
5571 CCACGGGCTTGCACGCGCTCCCGGCGCCAAATATTTCTAGGGGCTGTGGCGGGTGG 5630  
5630 CTGCTGAGGAGTACGTGGAGGTTACGCGGTTGGGGATTTTCCACCTACGTACGCGGATCA 5689  
5631 CTGCTGAGGAGTACGTGGAGGTTACGCGGTTGGGGATTTTCCACCTACGTACGCGGATCA 5690  
5690 CCACCTGACAAAGTAAAGTTCAGGTTTCGCGGCTCCCGGCTTCTTTCACAGAGTGG 5749  
5691 CCACCTGACAAAGTAAAGTTCAGGTTTCGCGGCTCCCGGCTTCTTTCACAGAGTGG 5750  
5750 ATGGGCTGGGTTGCACAGGTAACGCTCCAGGTCGCAACCCCTCTACGGGAGGAGTCA 5809  
5751 ATGGGCTGGGTTGCACAGGTAACGCTCCAGGTCGCAACCCCTCTACGGGAGGAGTCA 5810  
5810 CATTCCTGCTGGGCTCAATCAATACCTGTTGGGTACAGCTCCCATGCGGAGCGGAC 5869  
5811 CATTCCTGCTGGGCTCAATCAATACCTGTTGGGTACAGCTCCCATGCGGAGCGGAC 5870  
5870 CGGAGCTAGCAGTGTCTCACTTCCATGCTCACCGACCCCTCCACATTTACCGCGGAGACGG 5929  
5871 TGGAGCTAGCAGTGTCTCACTTCCATGCTCACCGACCCCTCCACATTTACCGCGGAGACGG 5930  
5930 CTAAGCTTAGCTGGCCAGGGGATCTCCCGCTCTCTGGCCAGCTCATCAGTAGCCAGC 5989  
5931 CTAAGCTTAGCTGGCCAGGGGATCTCCCGCTCTCTGGCCAGCTCATCAGTAGCCAGC 5990  
5990 TGTCTGCGCTTCTTGAAGGCAACATGCACTACCCGTCATGATCTCCCGGAGCTGACC 6049  
5991 TGTCTGCGCTTCTTGAAGGCAACATGCACTACCCGTCATGATCTCCCGGAGCTGACC 6050  
6050 TCATCGAGGCAACCTCTCTGCGGCGGAGATGGCGGGGAAACATCAACCCCGTGGAGT 6109  
6051 TCATCGAGGCAACCTCTCTGCGGCGGAGATGGCGGGGAAACATCAACCCCGTGGAGT 6110  
6110 CAGAAATAAGTAGTAAATTTGAGCTCTTTTCGAGCGCTCCACGCGGAGGAGTGA 6169  
6111 CAGAAATAAGTAGTAAATTTGAGCTCTTTTCGAGCGCTCCACGCGGAGGAGTGA 6170  
6170 GGAAGTATCCGTTTCGCGGAGATCTTGGGAGGTCCAGGAAATTTCCCTCGAGCGATGC 6229  
6171 GGAAGTATCCGTTTCGCGGAGATCTTGGGAGGTCCAGGAAATTTCCCTCGAGCGATGC 6230  
6230 CCATATGGGACCGCGGATTAACCCCTCCACTGTTAGCTCTTGGAGGACCGGACT 6289





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; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 24
; LENGTH: 8638
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
US-10-789-355-24

Query Match          0.4%; Score 33.4; DB 1; Length 8638;
Best Local Similarity 49.2%; Pred. No. 3.2;
Matches 88; Conservative 0; Mismatches 91; Indels 0; Gaps 0;

Qy      6119 AGGTAGTAAATTTTGGACTCTTTTCAGCGCGTCTCCAGCGGAGGAGGATGAGAGGGAAGTAT 6178
          |||||
Db      6298 AGGGACGTAGTCCGGGTCCTTCCAGGACTCTAACAGTGGAGGGTTGTAATCCGGCGCTGC 6239
          |||||

Qy      6179 CGGTTCGGCGGAGATCCTCGGAGGTCCAGGAAATTCCTTCGAGCGATGCCCATATGGG 6238
          |||||
Db      6238 CCATATGGGCATCGCTCGAGGGAATTTCTGGACCTCCGCGAGGATCTCCCGCGGAACGGA 6179

Qy      6239 CAGCCCGGATTAACAACCTCCACTGTTAGAGTCTCGAAGGAGCCGGACTACGTCCCT 6297
          |||||
Db      6178 TACTTCCCTCTCATCTCTCCTCCGTTCCGAGCGGCTCGAAGAGTCCAAAATTACTACCT 6120
          |||||

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RESULT 13
US-10-789-355-25/c
; Sequence 25, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 25
; LENGTH: 8638
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802) ... (8407)
US-10-789-355-25

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RESULT 14  
US-10-789-355-1/C  
; Sequence 1, Application US/10789355

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; GENERAL INFORMATION:
; APPLICANT: BOHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 8639
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1803)...(8408)
; US-10-789-355-1

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RESULT 15
US-10-789-355-5/c
; Sequence 5, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOMHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 8648
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)... (8407)
US-10-789-355-5

```

	Query Match	0.4%	Score 33.4	DB 1	Length 8648
	Best Local Similarity	49.2%	Pred. NO. 3.2		
	Matches 88	Conservative 0	Mismatches 91	Indels 0	Gaps 0
Qy	6119	AGGTAGTAATTTTGGACTCTTTTCAGCCGCTCCAAAGCGGAGGAGATGAGAGGGAATGAT	6178		
Db	6298	AGGGACGTAGTCGCGGGTCTTTCAGGACTCTAACAGTGGAGGGTGTGAATCCCGGGCGTGC	6239		
Qy	6179	CCGTTCCGGCGGAGATCCCTCGGAGGTCTCAGGAAATTCCTTCGAGCGATGCCCATATATGGG	6238		

```

Db      6238 CCATATGGGATCGCTCGAGGGAATTTCTTGACCTCGCAGGATCTCCGCCGGAACGGA 6179
Qy      6239 CAGCCCGGATTACAACCTCCACTGTTAGAGTCTCTGGAAGCACCAGACTACGTCCCT 6297
Db      6178 TACTTCCCTCTCATCTCTCTCCGCTTGGAGCGGCTCGAAAGAGTCCAAAATTACTACT 6120

RESULT 16
US-10-789-355-2/c
; Sequence 2, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 8642
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
; FEATURE:
; NAME/KEY: variation
; LOCATION: 6288
; OTHER INFORMATION: r = a or g
; NAME/KEY: variation
; LOCATION: 4446
; OTHER INFORMATION: r = a or g
US-10-789-355-2

Query Match      0.4%; Score 33; DB 1; Length 8642;
Best Local Similarity 48.6%; Pred. No. 3.4;
Matches 87; Conservative 1; Mismatches 91; Indels 0; Gaps 0;

Qy      6119 AGGTAGTAATTTGGACTCTTTGAGCCGCTCCAAGCGGAGGAGTGAAGAGGGAAGTAT 6178
Db      6298 AGGGAGCTAGTCCGGGTCTCTCCAGGACTCYAACAGTGGAGGGTTGTAATCCGGCGTGC 6239
Qy      6179 CCCTTCGGGGAGATCTTCGGGAGGTCCAGGAATTCCTCGAGCGATGCCCATATGGG 6238
Db      6238 CCATATGGGATCGCTCGAGGGAATTTCTTGACCTCGCAGGATCTCCGCCGGAACGGA 6179
Qy      6239 CAGCCCGGATTACAACCTCCACTGTTAGAGTCTCTGGAAGCACCAGACTACGTCCCT 6297
Db      6178 TACTTCCCTCTCATCTCTCTCCGCTTGGAGCGGCTCGAAAGAGTCCAAAATTACTACT 6120

RESULT 17
US-10-789-355-4/c
; Sequence 4, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
```

```

; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 8643
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1802)...(8407)
US-10-789-355-4

Query Match      0.4%; Score 31.8; DB 1; Length 8643;
Best Local Similarity 64.0%; Pred. No. 4;
Matches 48; Conservative 0; Mismatches 27; Indels 0; Gaps 0;

Qy      858 CTGGACGAAGAGCATCAGGGGCTCGCGCAGCGCAACTGTTCCGCCAGGCTCAAGGCGCGC 917
Db      932 CTCGCCGTGGGATGCGCGCTTGAGCTGCGCAACAGTTGCGTGGCGGAGCCCTG 873
Qy      918 ATGCCCGACGGCGAG 932
Db      872 ATGCTCTTCGTCCAG 858

RESULT 18
US-10-789-355-15/c
; Sequence 15, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 39
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-15

Query Match      0.4%; Score 31.2; DB 1; Length 39;
Best Local Similarity 91.7%; Pred. No. 60;
Matches 33; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy      1155 TATCGCTTCTTGACGAGTTCTTCTGAGTTTAAACA 1190
Db      39 TATCGCTTCTTGACGAGTTCTTCTGAGTTAACATA 4

RESULT 19
US-10-789-355-17
; Sequence 17, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 17
; LENGTH: 30
; TYPE: DNA
```

```
; ORGANISM: HCV
US-10-789-355-17

Query Match      0.3%; Score 30; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 84;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 66 ACCGAGAAAGCGTCTAGCCATGCGGTAGT 95
|||||
Db 1 ACCGAGAAAGCGTCTAGCCATGCGGTAGT 30

RESULT 20
US-10-789-355-18/c
; Sequence 18, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; PRIOR FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 30
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-18

Query Match      0.3%; Score 30; DB 1; Length 30;
Best Local Similarity 100.0%; Pred. No. 84;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 292 CCTGATAGGCTGCTGCGAGTGCCCGGGA 321
|||||
Db 30 CCTGATAGGCTGCTGCGAGTGCCCGGGA 1

RESULT 21
US-10-789-355-14
; Sequence 14, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 36
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-14

Query Match      0.3%; Score 28; DB 1; Length 36;
Best Local Similarity 100.0%; Pred. No. 1.1e+02;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 386 CATGATTGAACAAGATGGATTGCACGCA 413
|||||
Db 9 CATGATTGAACAAGATGGATTGCACGCA 36

; ORGANISM: HCV
US-10-789-355-21/c
; Sequence 21, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 21
; LENGTH: 27
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-21

Query Match      0.3%; Score 27; DB 1; Length 27;
Best Local Similarity 100.0%; Pred. No. 1.5e+02;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 587 ATCGTGGCTGCGCCACGACGGCGTTCC 613
|||||
Db 27 ATCGTGGCTGCGCCACGACGGCGTTCC 1

RESULT 23
US-10-789-355-23/c
; Sequence 23, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 23
; LENGTH: 27
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-23

Query Match      0.3%; Score 25.4; DB 1; Length 27;
Best Local Similarity 96.3%; Pred. No. 2e+02;
Matches 26; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 6690 GCTGCCCATCAATGCATCTGACGAACTC 6716
|||||
Db 27 GCTGCCCATCAATGCATCTGACGAACTC 1

RESULT 24
US-10-789-355-19
; Sequence 19, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10789,355
; CURRENT FILING DATE: 2004-02-27
```

```
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19
; LENGTH: 26
; TYPE: DNA
; ORGANISM: HCV
; FEATURE:
; OTHER INFORMATION: Label with FAM: fluorescence reporter dye
; OTHER INFORMATION: Label with TAMRA: Quencher dye
US-10-789-355-19

Query Match
Best Local Similarity 96.2%; Score 24.4; DB 1; Length 26;
Matches 25; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 144 TGGTCTCGGGAACGGTGAGTACACC 169
Db 1 TGGTCTCGGGAACGGTGAGTACACC 26

RESULT 25
US-10-789-355-10
; Sequence 10, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 33
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-10

Query Match
Best Local Similarity 0.3%; Score 23.4; DB 1; Length 33;
Matches 24; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1185 TAAACAGACCAACACGGTTTCCCTC 1209
Db 9 TTAACAGACCAACACGGTTTCCCTC 33

RESULT 26
US-10-789-355-11/c
; Sequence 11, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 30
```

```
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-11

Query Match
Best Local Similarity 0.3%; Score 23; DB 1; Length 30;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1782 TGAAAAACACGATAATACCATGG 1804
Db 30 TGAAAAACACGATAATACCATGG 8

RESULT 27
US-10-789-355-22
; Sequence 22, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 22
; LENGTH: 23
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-22

Query Match
Best Local Similarity 0.2%; Score 21.4; DB 1; Length 23;
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2293 GTCGTCTTCTCTGATATGGAGAC 2315
Db 1 GTCGTCTTCTCTGATATGGAGAC 23

RESULT 28
US-10-789-355-12
; Sequence 12, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 45
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-12

Query Match
Best Local Similarity 0.2%; Score 15; DB 1; Length 45;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCAGCCCCCGATTG 15
Db 31 GCCAGCCCCCGATTG 45
```

```

; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 63
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-9

Query Match          0.2%; Score 14.3; DB 1; Length 63;
Best Local Similarity 71.1%; Pred. No. 6.7e+02;
Matches 32; Conservative 0; Mismatches 12; Indels 1; Gaps 1;

QY 369 AAACCAAAGGCGCGCCATGAT-TGAACAAGATGGATTGCACGC 412
    |||||
Db 2 AATTCCAGATGGCGCGCCAGATGTTAACACAGATCCATGGCACAC 46

RESULT 32
US-10-789-355-21
; Sequence 21, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 21
; LENGTH: 27
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-21

Query Match          0.2%; Score 14; DB 1; Length 27;
Best Local Similarity 77.3%; Pred. No. 1.2e+03;
Matches 17; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

QY 582 CGGCTATCGTGGCTGGCCACGA 603
    |||||
Db 5 CGCCCGTGGTGGCCACGCA 26

RESULT 33
US-10-789-355-9/c
; Sequence 9, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 63
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-9/c

; Sequence 16, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 16
; LENGTH: 45
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-16

Query Match          0.2%; Score 15; DB 1; Length 45;
Best Local Similarity 100.0%; Pred. No. 7.7e+02;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GCCAGCCCCCGATTG 15
    |||||
Db 31 GCCAGCCCCCGATTG 45

RESULT 30
US-10-789-355-20
; Sequence 20, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 20
; LENGTH: 45
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-20

Query Match          0.2%; Score 15; DB 1; Length 45;
Best Local Similarity 100.0%; Pred. No. 7.7e+02;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 CCAGCCCCCGATTGG 16
    |||||
Db 31 CCAGCCCCCGATTGG 45

RESULT 31
US-10-789-355-9
; Sequence 9, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
```

## US-10-789-355-9

Query Match 0.2%; Score 13.8; DB 1; Length 63;  
Best Local Similarity 72.0%; Pred. No. 7.1e+02;  
Matches 18; Conservative 0; Mismatches 7; Indels 0; Gaps 0;  
  
Qy 4020 CGTCTGCCAGGACCATCTGGAGTTC 4044  
| | | | | | | | | | | | | | | | | | | | | |  
Db 25 CATCTGGCGCGCCATCTGGGAATTC 1

## RESULT 34

US-10-789-355-13  
; Sequence 13, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 13  
; LENGTH: 45  
; TYPE: DNA  
; ORGANISM: HCV  
US-10-789-355-13

Query Match 0.1%; Score 12.8; DB 1; Length 45;  
Best Local Similarity 70.8%; Pred. No. 9.9e+02;  
Matches 17; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

Qy 8453 CCTTTTCTTTCTTTCTTTCTTTT 8476  
| | | | | | | | | | | | | | | | | | | | | |  
Db 7 CCCTTGGTTTCTTTGAGGTTT 30

## RESULT 35

US-10-789-355-15  
; Sequence 15, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 15  
; LENGTH: 39  
; TYPE: DNA  
; ORGANISM: HCV  
US-10-789-355-15

Query Match 0.1%; Score 12.6; DB 1; Length 39;  
Best Local Similarity 66.7%; Pred. No. 1.1e+03;  
Matches 18; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

Qy 4545 CGCGAACAAATTCAGAGGCAAT 4571  
| | | | | | | | | | | | | | | | | | | | | |  
Db 12 CTCAGAAGAACTCGTCAAGAGCGCAT 38

## RESULT 36

US-10-789-355-11  
; Sequence 11, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 11  
; LENGTH: 30  
; TYPE: DNA  
; ORGANISM: HCV  
US-10-789-355-11

Query Match 0.1%; Score 12.2; DB 1; Length 30;  
Best Local Similarity 68.0%; Pred. No. 1.4e+03;  
Matches 17; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

Qy 8023 CGACTCCATGGCCTTAGCGCATTTT 8047  
| | | | | | | | | | | | | | | | | | | | | |  
Db 3 CGTACCCATGGTATTATCGTGTTTT 27

## RESULT 37

US-10-789-355-14/c  
; Sequence 14, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2001-12-21  
; PRIOR APPLICATION NUMBER: 60/257,857  
; PRIOR FILING DATE: 2000-12-22  
; NUMBER OF SEQ ID NOS: 25  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 14  
; LENGTH: 36  
; TYPE: DNA  
; ORGANISM: HCV  
US-10-789-355-14

Query Match 0.1%; Score 12.2; DB 1; Length 36;  
Best Local Similarity 60.6%; Pred. No. 1.2e+03;  
Matches 20; Conservative 0; Mismatches 13; Indels 0; Gaps 0;

Qy 7849 TCCTGGCTAGGCAACATCATCTGTCGCCCC 7881  
| | | | | | | | | | | | | | | | | | | | | |  
Db 36 TGGTGCAATCCATCTTGTTCATCATCGCCCC 4

## RESULT 38

US-10-789-355-20/c  
; Sequence 20, Application US/10789355  
; GENERAL INFORMATION:  
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
; FILE REFERENCE: 13/083  
; CURRENT APPLICATION NUMBER: US/10789,355  
; PRIOR FILING DATE: 2004-02-27  
; PRIOR APPLICATION NUMBER: US/10789,355



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RESULT 43
US-10-789-355-18
; Sequence 18, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 30
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-18

Query Match      0.1%; Score 10.8; DB 1; Length 30;
Best Local Similarity 60.0%; Pred. No. 1.6e+03;
Matches 18; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 2619 TCAATGTCGCGGCTCAAGACCCCTTGC GG 2648
Db 1 TCCCGGGGCACTCGCAAGCACCTATCAGG 30

RESULT 44
US-10-789-355-12/c
; Sequence 12, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 45
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-12

Query Match      0.1%; Score 10.6; DB 1; Length 45;
Best Local Similarity 64.0%; Pred. No. 1.2e+03;
Matches 16; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 5060 TCGTGTGCGCAGCGATCTGCGTCG 5084
Db 42 TCGGGGGCTGGCCTATAGTGAGTCG 18

RESULT 45
US-10-789-355-16/c
; Sequence 16, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
```

```
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 16
; LENGTH: 45
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-16

Query Match      0.1%; Score 10.6; DB 1; Length 45;
Best Local Similarity 64.0%; Pred. No. 1.2e+03;
Matches 16; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 5060 TCGTGTGCGCAGCGATCTGCGTCG 5084
Db 42 TCGGGGGCTGGCCTATAGTGAGTCG 18

RESULT 46
US-10-789-355-22/c
; Sequence 22, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 22
; LENGTH: 23
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-22

Query Match      0.1%; Score 10.2; DB 1; Length 23;
Best Local Similarity 65.2%; Pred. No. 2e+03;
Matches 15; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

QY 6797 GACTGCAGGTCTCTGCGACGCCAC 6819
Db 23 GTCTCCATGTCCAGAGACGAC 1

RESULT 47
US-10-789-355-8
; Sequence 8, Application US/10789355
; GENERAL INFORMATION:
; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.
; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM
; TITLE OF INVENTION: HEPATITIS C VIRUS
; FILE REFERENCE: 13/083
; CURRENT APPLICATION NUMBER: US/10/789,355
; CURRENT FILING DATE: 2004-02-27
; PRIOR APPLICATION NUMBER: US/10/029,907
; PRIOR FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 60/257,857
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 6
; TYPE: DNA
; ORGANISM: HCV
US-10-789-355-8
```

Query Match 0.1%; Score 6; DB 1; Length 6;  
 Best Local Similarity 100.0%; Pred.No. 1.2e+04;  
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4765 ACCAGC 4770  
 Db 1 ACCAGC 6

RESULT 48  
 US-10-789-355-8/c  
 ; Sequence 8, Application US/10789355  
 ; GENERAL INFORMATION:  
 ; APPLICANT: BOEHRINGER INGELHEIM (CANADA) LTD.  
 ; TITLE OF INVENTION: SELF REPLICATING RNA MOLECULE FROM  
 ; FILE REFERENCE: 13/083  
 ; CURRENT APPLICATION NUMBER: US/10/789,355  
 ; PRIOR FILING DATE: 2004-02-27  
 ; PRIOR APPLICATION NUMBER: US/10/029,907  
 ; PRIOR FILING DATE: 2001-12-21  
 ; PRIOR APPLICATION NUMBER: 60/257,857  
 ; PRIOR FILING DATE: 2000-12-22  
 ; NUMBER OF SEQ ID NOS: 25  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 8  
 ; LENGTH: 6  
 ; TYPE: DNA  
 ; ORGANISM: HCV  
 US-10-789-355-8

Query Match 0.1%; Score 6; DB 1; Length 6;  
 Best Local Similarity 100.0%; Pred.No. 1.2e+04;  
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2083 GCTGGT 2088  
 Db 6 GCTGGT 1

Search completed: January 25, 2007, 12:27:36  
 Job time : 343 secs